

AMERICAN

25c

YEARLY U. S. \$3.00

Cinematographer



THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

TWENTY-NINTH YEAR

DECEMBER
1948



Speed

and extreme wide latitude are inherent characteristics of Du Pont "Superior" 2. Cinematographers in leading studios appreciate these qualities, and many agree this popular, all-purpose negative stock meets every requirement of high or low key lighting... even under adverse conditions. E. I. du Pont de Nemours & Co. (Inc.), Photo Products Department, Wilmington 98, Delaware, New York—Los Angeles—Chicago.

DU PONT MOTION PICTURE FILM



*Time is Du Pont "CAVALCADE OF AMERICA"
Monday nights—NBC Coast to Coast*

BETTER THINGS FOR BETTER LIVING THROUGH CHEMISTRY

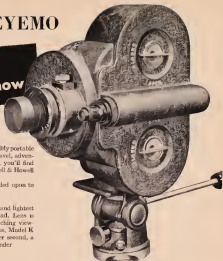
BELL & HOWELL EYEMO

OKed
by men who know

Whenever the assignment calls for a readily portable 35mm camera, whether it's newsreel, travel, adventure, documentary, or industrial work, you'll find that most cinematographers choose a Bell & Howell Eyemo.

Why? Because Eyemo can be depended upon to get the picture . . . and get it right!

EYEMO MODEL K (right) is the simplest and lightest of all the Eyemos. Has single-lens head. Lens is quickly interchangeable, as is the matching viewfinder objective. Like all current Eyemos, Model K has a speed range of 8 to 48 frames per second, a hand crank, and a positive-type viewfinder.



EYEMO MODEL M has a compact, three-lens turret head. Finder is matched to the lens in use by turning the finder objective turret.

EYEMO MODEL Q has three-arm offset turret, pneumatic focusing magnifier (for direct viewing through the lens), and provisions for adding external film magazines and electric motor drive.

Eyemos are sold only direct to you from the B&H factory or branch offices: Bell & Howell Company, 7148 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D. C., and London.



For 16mm Professional Work
it's the new
FILMO 70 SPECIALIST
Write for FREE Illustrated Literature

Produced Made by
Bell & Howell

Since 1907 the Largest Manufacturer of Professional Motion Picture
Equipment for Hollywood and the World

VICTOR MILNER
A. S. C.



...who wrote the chapter
"Painting With Light,"

**will personally
autograph your
copy of the**



**if purchased during
December!**

Published in 1940, a limited number of the original editions of this valuable technical book are available to cinematographers, movie theaters, schools and public libraries.

No other book ever written contains so much data supplied by the professionals of Hollywood's motion picture studios.

Printed on fine coated paper, containing hundreds of photographic illustrations, and bound in blue leatherette, this book could not be produced today for anywhere near the special price asked.

ORDER BY COUPON TODAY!

American Society of Cinematographers

1762 No. Grange Dr.

Hollywood 28, Calif.

Gentlemen: Enclosed find \$3.50 for which please send me a copy of the extremely autographed CINEMATOGRAPHIC ANNUAL.

Name _____

Address _____

City _____

Zone _____

State _____

Hollywood

Bulletin Board



JACK CAROFF, A.S.C., who flew to Hollywood from London recently to shoot final scenes for "Under Capricorn" of Warner Brothers' studio, was entertained by group of active A.S.C. members at a dinner at Chumley's, arranged by Charles Ender. Caroff spoke briefly on advantages of technical methods followed in British movie studios. In photo at right: Caroff (playing piano) and hosts being treated to happy ending with cocktail at "Mild Lane" type.



NEW ASSOCIATE members recently admitted to the American Society of Cinematographers include: Sidney P. Selow, Wallace V. Wolfe and H. W. Remetsch.

GEORGE SCHREIBER, widely known among cameramen for his films used to obtain special photographic effects, succumbed suddenly to a heart attack November 15th.

STANLEY HORSLEY, A.S.C., has developed a radically new type color temperature meter and reportedly is dickering with a local manufacturer to turn it out on special order. Because of its limited field, meter will be custom made. It is said to be ideally suited for special effects work.

RAY FERNSTROM, A.S.C., recently shot initial tests of the new Botoscopic Minitrack camera at Palm Springs for Technicolor which company will make demonstration prints for exhibition only in December.

CHARLES KOSNER, A.S.C., was honored at recent convention of the Photographic Society of America with an award of Association in the Society Honorific, it will be A.P.S.A. after his name—in addition, of course, to A.S.C.

TWO PROGRAM features of special interest to every A.S.C. member on schedule for forthcoming meetings of the Society, are: **Hedy Mays**, A.S.C., speaking on subject of identification and declassification procedure with films; and **Harry Rubcke**, director of Don Lee television station KTLN, who will describe the seven rules for acceptable television film production. **Victor Milner, A.S.C.** and **Fred Jackson, A.S.C.**, serving on Society's program committee, made the arrangements.

DUAL PURPOSE films, geared to be released in theaters and via television, probably will not become the big trend expected, according to **William Luky**, who recently photographing has short subjects for distribution to both outlets. The major studios who buy his product have reportedly turned down any and all dual-purpose films. Henceforth his productions will undergo separate filming treatment for each medium.



GEORGES BENOIT, A.S.C., film exhibitor

LUCIEN ANDRIOT, A.S.C., while en route to Morocco where he photographed background and atmosphere shots for "Quartier Marocain," reports having encountered **Georges Benoit, A.S.C.**, in Salon de Provence, a small suburb of Marseilles. **France Benoit** now owns a small motion picture theatre there and was showing "For Whom the Bell Tolls."

Andrion had 8 cameras on this special assignment. 2 Mitchell which he brought from the U. S. and 5 DeLuxe and one Edcar which he picked up at Paris. His camera crew consisted of eight men. The Edcar camera, he reports, is something new in hand held cameras, on the order of Bell & Howell's Eyemo, but with many radically new innovations.

... television and cinematography

NO GROUP of men in Hollywood has watched the development of television in recent months with greater interest than the cinematographers. Uppermost in their minds has been the one question: "Will television cut into the production of motion pictures?"

Perhaps the most optimistic note yet sounded for these men was Joel Muroc's statement in a recent issue of the *Hollywood Reporter* in which it was claimed that television producers returning to Hollywood from the east where they sampled television fare there, are of the opinion that motion picture people are sorely needed in the medium and will find a whole new market for their services as soon as video cameras can offer them enough money to make it interesting.

"Major crying need of the moment," Muroc noted, "is for experienced motion picture cameramen and directors. At present several cameras may be used on a production for television, the cameramen using them only for the purpose of switching viewpoints. The cameramen are seldom, if ever, needed for the purpose of highlighting dramatic values. ABC and CBS tele units have openly expressed their desire to hire cameramen as soon as income warrants, not only for technical points, but also for executive positions in production and programming."

Unquestionably Hollywood's directors of photography with long years of training, studio experience and photographic skills could contribute considerably toward lifting the quality of television shows. It is logical to assume, therefore, that television—rather than jeopardizing their future—holds great promise for many motion picture cameramen.



AMERICAN SOCIETY OF CINEMATOGRAPHERS

OFFICERS AND BOARD OF GOVERNORS

CHARLES G. CLARKE, President
FRED W. JACKMAN, Exec. V-Pres. and Treas.
ARTHUR EBBSON, First Vice-President
ALFRED L. GILRA, Second Vice-President
WILLIAM V. SKALL, Third Vice-President
RAY BURNHAMMAN, Secretary
JOHN W. BOYLE, Sergeant-at-Arms
John Arnold
Sol Polito
George Foley
Charles Kosher
Lee Garvin
John Serr
Leon Shamroy
Joseph Walker

ALTERNATE BOARD MEMBERS

Milton Krasner
Sol Halprin
Arthur Miller
Hal Mohr
Joseph Rotenberg

AMERICAN

Cinematographer

THE MAGAZINE OF MOTION PICTURE PHOTOGRAPHY

ARTHUR E. GAVIN, Editor

RETHEE TOW, Assistant Editor
GLENN R. KIRKINER, Art Editor
Technical Editor, EMERY HUSE
Circulation, MARGUERITE DUBBS
EDITORIAL ADVISORY BOARD: Fred W. Jackman, A.S.C., John Arnold, A.S.C., Arthur Ebbson, A.S.C., Lee Garvin, A.S.C., Charles Kosher, A.S.C., Leon Shamroy, A.S.C., Fred Gage, A.S.C., Dr. J. S. Watson, A.S.C., Dr. L. A. Jents, A.S.C., Dr. C. E. K. Moss, A.S.C., Dr. V. B. Stone, A.S.C., Col. Nathan Levinson

Editorial and Business Office: 1782 N. Orange St., Hollywood 28, Calif.
Telephone: GRanite 2135

VOL. 29

DECEMBER • 1945

NO. 12

CONTENTS

Articles

LATINIFICATION—By Hella W. Meier, A.S.C.	409
MOBILE CAMERA LAP—By Walter M. Chase, A.S.C.	510
LOW KEY AND LIVELY ACTION—By Herb A. Leghman	411
"JUDAS" FILMED WITHOUT SOUND OR SETS—By Norman Aron	512
KARL FRIEDRICH INTRODUCES THE CONTRACT LENSUP SYSTEM—By Ralph Lawton	413
MOBILS JACK FOR MOVING WILD WALLS—By Frederick Foster	414

Features

HOLLYWOOD BULLETIN BOARD	404
CURRENT ASSIGNMENTS OF A. S. C. MEMBERS	406
ROSTER OF AMERICAN SOCIETY OF CINEMATOGRAPHERS	422
CINE KINGS	424
25 YEARS AGO WITH A. S. C. AND MEMBERS	426
WHAT'S NEW IN EQUIPMENT, ACCESSORIES, SERVICE	431
INDEX TO AMERICAN CINEMATOGRAPHER FOR 1945, VOL. XXIX	432

16mm. & 8mm. Section

BANG! THE SHADOWS—By Arthur Rowan	17
SPECIAL EFFECTS LIGHTING FOR COMMERCIAL FILMS—By Charlie Loring	418
GLAMORIZING NUTS AND BOLTS—By Alfred Higgins	120

ON THE COVER

JACK CARDIFF, A.S.C., (center right) was something new in moving camera shots for the J. Arthur Rank production, *The Red Shoes*, filmed at Pinewood Studios, London. To produce visual effect of demented images whirling and fading as in a dream, Cardiff had his camera mounted on a wooden frame and suspended from overhead by heavy black ropes. Then, mounted, the camera was vertically hoisted up and down, tilted, swung from side to side or moved in and out to achieve the unusually visual effect—a photographer's highlight of the picture.

AMERICAN CINEMATOGRAPHER established 1920 is published monthly by the A. S. C. Agency Inc., 1782 N. Orange St., Hollywood 28, Calif. Entered as second class matter May 15, 1937 at the postoffice at Los Angeles, Calif. under act of March 3, 1979. SUBSCRIPTIONS: United States and Pan American Union, \$5.00 per year; Canada, \$5.00 per year; Foreign, \$4.00. Single copies 25 cents; back numbers 30 cents; foreign single copies 35 cents; back numbers 40 cents. Advertising rates on application. Copyright 1945 by A. S. C. Agency Inc. AUSTRALIAN REPRESENTATIVE: MOORE, 170 Elizabeth St., Melbourne.

WHAT SPOTS!



**BARDWELL
and
McALISTER**
Superior Studio
Lighting Needs

*More less
than regu-
lar price*

LIKE NEW!

- Dinky, Model 1, 150W spots \$19.95
- Baby Kiplings with floor stands 24.95
- Two 1/2" weights for Baby Kiplings stand 19.95
- 1/2" spot attachments for Baby Kiplings 35.95
- Baby Kiplings on floor stand 114.95
- 2" 2500W spots on floor stands 129.50
- 2" 3" 5000W with 300" rated air 149.95
- Double beams 2500W on floor stands 114.95

NEUMADE FILM CLEANING MACHINES

Combination 35/16mm model—does full 3500 ft/min. or 500 ft/min. run in 5 minutes, removed perfectly dry, cleaned and polished. Specially cleaned and housing ground metal. **\$194.50** (Work 5395) New Stock.

THE ONE STOP STORE FOR FILM PRODUCTION EQUIPMENT—Camera, Receptors, Microphones, Tripods, Lenses, Release, Filters, etc. Ask for Catalog Sheet No. 10 or Supplement 1 you will find have 1.

U.S. O. S. you are always in contact of Top Qual. and Lowest Price!—a consideration that can save to you. Thousands more at street of business in your office.

S. O. S. Cinema Supply Corp.

Dept. J, 402 West 52nd St. New York 19



THREE PROFESSIONAL
HIGH FIDELITY MACHINES
PRICED TO BEAT ALL COMPETITION

Cine-Pro SIXTEEN MM

FILM RECORDER

FILM PHONOGRAPH

TAPE RECORDER

Cine-Pro CORPORATION

106 West End Avenue
NEW YORK 25, N. Y. TRAM 3-4400

Current Assignments of A.S.C. Members



Major film productions on which members of the American Society of Cinematographers were engaged as directors of photography during the past month

Allied Artists

- **HARRY NEUMANN** "Swampage" with Rod Cameron, Gail Storer, Johnny Mack Brown, Lesley Scharrer, director
- **CARL STRICK**, Bud Boy with Lloyd Nolan, Jane Wyatt, James Gleason, Kurt Mauryan, director

Columbia

- **REX WISPY** "Loretta" with Charles Starrett and Shirley Ross, Ray Nazarro, director
- **CHARLES LAYTON**, "The Doodie Gang," (previously changed to "Wild Bill Doodie"), with Randolph Scott, George Mackenzie, and John Ireland, Gordon Douglas, director
- **ARCHIE STREET** "Banned" with Glenn Ford, Lee Remick, and Edgar Buchanan, George Marshall, director
- **HENRY FORD** "The Duke of Henchman" with Walter Brant and Mary Beth Hughes, Seymour Cheshkin, director
- **IRA H. MORGAN**, "The Mothmen," starring Jon Hall and Adelle Jopson, Joan Yarnoch, director

- **WILLIAM E. SMITH**, "John Sage Agass," (Technicolor) with Larry Parks, Barbara Hale and William Demarest, Henry Levin, director

- **VINCENT FARRAR**, "Home in San Antonio," with Ray Aitch, Stinky Moe, Boys and Jane Wallace, Ray Nazarro, director

Independent

- **STANLEY GARTZ**, "The Man on the Buffalo Tower," (Allen & Tone), (Showings in Paris on Arco Color) with Charles Laughton, Frances Tone, Burgess Meredith, et al. Irving Allen, director

- **LEE GARDNER**, "Ressans McCoy," (Goldwyn RECO) with Farley Granger and Joan Evans, Irving Reis, director

- **GILBERT WARRINGTON**, "Councillor At Law," (Crescent), (Egmont E.L.) with Jon Borman and Nancy Gage, Lou Collins, director

- **WINTON HOCH**, "She Was A Yellow Rabbit," (Technicolor), (Argosy) with John Wayne and Joanne Dru, John Ford, director

- **FRANK PLAZER**, "Champion," (Screen Play) with Kirk Douglas and Marilyn Monroe, Mark Robson, director

M-G-M

- **HARRY STRAUSS**, "Bailiffs of Broadway," (Technicolor) with Paul Anjou, Gagar Rogers and Oscar Levant, Charles Walters, director

- **GEORGE PULSFY**, "The Great Sinner" with Gregory Peck and Ava Gardner, Robert Ross, director

- **RAY JUNE**, "The Secret Garden," with Margaret O'Brien and Dean Jagger, Fred M. Wilcox, director

- **HAL ROSS**, "The Session Story" with Jane Stewart and Jane Allen, Sam Wood, director

- **CHARLES ROSS**, "Nepheris Daughter," (Technicolor) with Red Skelton and Peter Wilton, Edward Berne, director

- **HARRY STRAUSS**, "Is The Good Old Sun," (Technicolor) with Judy Garland and Van Johnson, Robert Z. Leonard, director

Monogram

- **HARRY C. NEUMANN**, "Crawling Through,"

- with Whip Whelan and Christine Lavin, Ray Taylor, director

- **WILLIAM A. SCHNER**, "Tuna Clippie," with Roddy McDowall and Elena Verdugo, William Bernstein, director

Paramount

- **GEORGE BARNES**, "Simon & Delilah," (Technicolor) with Bette Leland and Victor Mature, Carl B. DeMille, director

- **LEO TROYER**, "Brave Victory," (Hal Wallis) with Robert Cummings, Elizabeth Scott and Deane Linn, William Doerrle, director

- **CHARLES B. LANE, JR.**, "Easy Does It," with Bob Hope and Rhonda Fleming, Alexander Hall, director

- **LEONARD LONDON**, "Top O' The Morning," with Baggy Candy, Ann Byrd and Barry Fox, Gerald David Miller, director

- **FRANK LAGGIO**, "Misbehaved," (Pete Thomas) with Dorothy Lamour and Sandra Hudson, Lewis R. Foster, director

R-K-O

- **MILTON KRASNER**, "The Set Up," with Robert Ryan and Audrey Totter, Robert Wise, director

- **NICHOLAS MEYERHOFER**, "Sugarfoot Kid" with Tim Holt and Jeff Donnell, Lew Landers, director

- **HARRY WILD**, "Sun Withers" with Martha Scott and Jeffrey Lynn, Will Price, director

- **ROBERT DE GRASSE**, "It's Only Money," with Frank Sinatra, Jane Russell and George Mac, Irving Capper, Jr., director

20th Century-Fox

- **JOE MACDONALD**, "Down To The Sea In Ships" with Richard Widmark, Cecil Kella, and Dean Jagger, Henry Hathaway, director

- **LEON SHARON**, "Fanny Of Paris," (Shooting in Italy) with Titina Tones, Dean Wells and Wendy Hendrix, director

- **HARRY JACKSON**, "The Beautiful Blonde From Babil," (Technicolor) with Betty Grable and Carlo Romano, Preston Sturges, director

- **IRVING HARRIS**, "I Was A Male War Bride," (Shooting in Germany) with Cary Grant and Ava Gardner, Howard Hawks, director

- **NORBERT BRODING**, "Hard Bargain," with Richard Conte and Valentina Cortese, John Davis, director

- **LLOYD ALLEN**, "Mr. Belvedere Goes To College" with Clifton Webb and Shirley Temple, Elton Nugent, director

- **ARTHUR ARLING**, "You're My Everything," (Technicolor) with Anne Bacon, Don Dealey and Anne Revere, Walter Lang, director

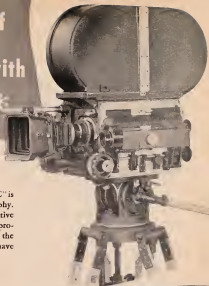
United Artists

- **FINST LASELLO**, "Impact," (Panison U-A) with Deas Dancy and Ella Raines, Arthur Lubin, director

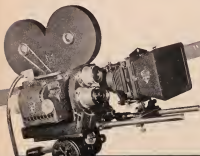
- **GILBERT WARRINGTON**, "Don Patch," (Frank U-A) with Dennis O'Keefe and Gail Russell, Joe Newman, director

(Continued on Page 34)

The great films of
Today are shot with
a *Mitchell* *



The MITCHELL STUDIO MODEL "BNC" is a truly silent camera for sound photography. No blimp is required. Its smooth, positive operation saves many costly hours of production time. Since the introduction of the "BNC," more and more major studios have made it standard equipment.



The MITCHELL "16" is enthusiastically acclaimed by leading commercial producers as the first professional camera to bring theatre-like quality to the 16mm screen. Typically MITCHELL in design and workmanship, it contains the same proven features that made MITCHELL cameras famous throughout the world.

Mitchell Camera CORPORATION

666 WEST HARVARD STREET • GLENDALE 4, CALIFORNIA • CABLE ADDRESS: "MITCAMCO"
EASTERN REPRESENTATIVE: THEODORE ALTMAN • 321 FIFTH AVENUE • NEW YORK CITY 17 • MURRAY HILL 3-7036



85% of the motion pictures shown in theatres throughout the world are filmed with a Mitchell



"To photograph a production
without the carbon arc
would be comparable to
directing the production
without principal
players."

Robert de Grasse
A.S.C.

**NATIONAL CARBON
COMPANY, INC.**

East of Ocean Carbon
and Carbon Corporation

U.S.

35 East 42nd Street
New York 17, N. Y.
District Sales Offices:
Atlanta, Chicago, Dallas,
Boston City, New York,
Pittsburgh, San Francisco



100 WELSH SPEED

ENLARGED reproduction of 15mm motion picture negative which illustrates what can be accomplished by intensification where shooting must be done under extremely adverse lighting conditions. Scene is from Paramount Pictures' "Grand Cloister." Filmed in the dining hall at West Point by John Lutz. A.S.C. Illumination was by natural light from



114 WELSH SPEED, LATENSIFIED

windows and the regular lighting fixtures. No studio lights were used. Note increased detail and overall density of the latensified camera negative on right. Both negatives were shot under identical lighting and camera conditions and were developed in the same gamma.

(Photos Courtesy Paramount Pictures, Inc.)

The application of the latensification process by Paramount Pictures, Inc., to still and motion picture negatives and by the Causerie Corporation to hi-pack negatives has demonstrated the usefulness of this method of increasing the emulsion speed of negative materials. Two or more of Hollywood's commercial laboratories are now equipping for the process. In effect, it permits the cinematographer, using negative of conventional speed, to switch to one much faster than is commercially available merely by indicating on the camera record the scenes he wishes recorded.

Latensification came to the attention of the industry in general at the time of the Academy's joint award to the Paramount and du Pont organizations at its annual presentations earlier this year. However, there are a number of points in its history during the past ten years which may be of interest to the reader and particularly the A.S.C. membership.

The phenomenon was noted in 1939 by Mr. Robert Cahoon in the course of his work in the du Pont Research Laboratories at Paris, New Jersey. He was intrigued by the fact that some exposed negative sensitometric strips, which had unintentionally received an extended safelight exposure, showed a very substantial increase in density in the threshold region. He diagnosed the effect as being tied up

(Continued on Page 426)

Latensification

What it is and how it works in increasing speed of negative emulsions, and its significance in cinematography of the future.

By HOLLIS W. MOYSE, A.S.C.



TWO 2 1/2 x 8 2 1/2 negatives that illustrate effect of latensification applied to motion films exposed on the set. Negative at left made at high shutter speed but under normal set lighting conditions is greatly under-exposed. Neg-

ative at right, exposed under identical conditions was latensified. It shows clearly the increased shadow detail and emulsion speed achieved by latensification.

(Photos courtesy Paramount Pictures, Inc.)



STANDING beside Warner Brothers' first Mobilab unit is J. B. McNeal, its designer; J. B. McGraw, camera and unit department maintenance man; and Jim Bush, assistant in charge of equipment. This unique double-wheeled trailer houses practically every convenience and facility found in the studio's camera department on the home lot, and affords more efficient handling of film and cameras on location.

Mobile Camera Lab

Location work made easier for the cameraman by this miniature camera department on wheels which features laboratory, darkroom and camera servicing facilities.

By WILFRID M. CLINE A S C

WHEN Robert Burks, A S C, and I went aboard the plane carrier, *USS Intrepid*, a few weeks ago to begin shooting initial scenes for *Warner Brothers Task Force*, we brought along the new Mobilab Camera Unit developed by J. B. Mike McGraw, head of the studio's camera department. The Mobilab, a converted U S Navy field trailer, is capable of providing all the facilities of the most deluxe home studio laboratory and dark room at dramatic location sites. Although designed primarily for location work on land, it is ironic that this converted wartime Navy vehicle should begin its new career on location at sea.

Introduction of the Mobilab into location work outmoded previous unwieldy methods, eliminates time-consuming and nuisance chores, and makes possible the application of technical advances never before practical in making motion pictures off the home lot.

The unit itself is a metal two-wheel trailer. The cab is of special duo-shell construction. One shell is housed within the other to provide complete protection against infiltration of dust and light. Also, the double wall construction affords ideal all-weather insulation. Weighing approximately 7000 pounds, when loaded, maximum length of trailer is 22 feet, width is 7 feet 4 inches, and outside height, 8 feet. Interior is divided into two compartments: the forward section is fitted as a laboratory and darkroom, while the after section provides storage for cameras and necessary equipment and affords ample space for assembly of equipment for field or location use. The Mobilab can be transported to any spot where an automobile or truck can travel and be anchored within a few feet of the actual shooting site, if necessary.

In the laboratory section is a stainless steel developing unit for both stills and motion picture raw strips, complete with

(Continued on Page 425)



EVERY inch of space within the Mobilab cab has been carefully utilized. Here is a closet devoted to storage of cameras, accessories and tripods.



AMPLE storage space assures a film strip is always at hand for development. Controlled temperature keeps film properly conditioned.



COMPLETE laboratory facilities enable still photographers to develop and print his films on location. Also develop motion film raw strips.

Low Key And Lively Action

Nick Musuraca, A.S.C., combines mood photography with gripping outdoor action to enhance visual quality of RKO's "Blood On The Moon."

By HERB A. LIGHTMAN



DIRECTOR of photography, Nicholas Musuraca, A.S.C., poses for the pictorial highlights of a new camera setup to Edmund and Gail, star of RKO's super-Western, "Blood On The Moon." Musuraca's superb mood photography lends this picture an epic sweep, places it far above the usual Western outdoor film.

"BLOOD ON THE MOON," RKO Radio's super-Western epic now in release, is a study in photographic mood. Filmed by Nicholas Musuraca, A.S.C., it borrows some of the most beautiful and compelling outdoor photography ever to reach the screen. While the acting and direction are also top-notch, it is the visual quality more than any other single element that lifts this film out of the class of the ordinary Western and elevates it to the level of cinematic art.

Director of photography Musuraca, who has become known as RKO's "mood expert," tailored his approach carefully to complement the ominous mood which pervades most of the action. "I studied the script thoroughly until I was able to visualize the principle moods of the story," he explains, "then I sketched out the photographic techniques we would employ to capture those moods on the screen. Each picture (depending upon whether it is a comedy, a drama or a suspense story) requires a different approach. In *Blood On The Moon* I knew that low-key lighting would play an important part in creating the visual mood demanded by the script."

And so it is that *"Blood On The Moon"* is primarily a low-key picture, a quality that sets it apart from the usual sun-drenched Western. The plot of the film revolves about two warring cattle factions who spend most of their time stampeding a herd of cattle back and forth across a river. Much of the dough-doggy takes place at night, a circumstance that allows for some breath-taking night photography.

The night scenes were shot on location and required 11,000 feet of infra-red film. Using this stock in combination with a 29 red filter, Musuraca captured some spectacular outdoor scenes, characterized by black skies, foamy white clouds and silvery foliage that appears to be bathed in moonlight. The illusion of night is almost perfect, and the effect is highly superior to conventional red-filtered, pointed-down sunlight shot photographed on a panchromatic emulsion.

Infra-red photography is dramatic, but it sometimes makes for headfakes, too, Musuraca pointed out. The cameraman must know exactly what he is doing, or the film may change the color of the players' clothes or tone of make-up. For this reason infra-red should not be used for close-ups. It is only

practical when shooting long and medium long shots."

Musuraca's lighting of the interior sequences of the film is unusually dramatic. In one particular sequence, the hero and the villain engage in a knock-down-drag-out brawl in a dimly-lighted saloon. The lighting is extremely low-key, with harsh contrast between highlights and shadows. During the fracas, the players are sharply etched with cross-light in a way that accentuates the martial force of their action. The result is brutally realistic—an effect that is furthered by an unspiced choice of camera angles. A wide-angle lens is used throughout this sequence and the action is played alternately up to and away from the camera in such a way as to make the spectacle

(Continued on Page 424)



FILMED on location in four different states, "Blood On The Moon" is remarkable for its unusual outdoor photography. Especially effective are the night sequences recorded with infra-red film and a No. 29 red filter.



IN THE New York apartment setting, light-weight spots were attached to ceiling beams and arranged to furnish the necessary illumination. The units provided effective source lighting.



THE TIME spots were augmented by M.E. midgey spots mounted on floor standards. Their numbers of units also skilful placement solved a critical lighting problem.



A LOCAL art shop in which important action was played served one of the varied lighting problems. Here cameramen Malkames used M.E. spots and portable stands effectively.

"Jigsaw" Filmed Without Sound Or Sets

How a feature film was photographed in New York without benefit of studio sets, using only natural locations and simplest of portable lighting equipment.

Sound was post-recorded and dubbed in the same as with foreign versions.

By NORMAN KEANE

IF YOU THINK that successful feature film can only be produced in Hollywood where studio facilities leave nothing to be desired by the cinematographer, you will find much to dispute your contentions in "Jigsaw," starring Franchot Tone. The picture was produced in New York City recently without benefit of a single studio set, although most of the action was shot

indoors. Photographed by Don Malkames, A.S.C., this production demonstrates that feature films can be photographed in natural settings and locations and have all the lighting quality we have come to expect of studio-produced motion pictures.

Moreover, this full length feature film was photographed entirely without sound—the sound and dialogue being dubbed in later, following the technique developed so successfully for dubbing foreign versions. In fact, the very inspiration for producing the picture had its beginning in Eastern Sound Studios in New York, where owners Harry Lee and Edward Danninger have for years been dubbing foreign versions for most of the major film distributors. Lee and Danninger reasoned that with the acceptance of their highly successful method of dubbing for foreign versions, the same method also could be applied to the production of films for domestic use, with a considerable saving in studio costs. And along the same line of thought they also feel that the time has come for wider use of natural settings now that highly efficient, portable lighting units have been developed.

Unlike other pictures filmed on location, "Jigsaw" does not follow the so-called documentary technique. The natural locations were used because they afforded economy in production. Not a single set was built for the entire picture. Even the props were those found on the locations. The area and locales used included interior of the Brooklyn Museum, a Fifth Avenue per shop, a prominent night club, its dressing rooms, a large restaurant of unique design, an apartment house interior, elevators, and a warehouse.

Every locale, every "set," was a challenge to Malkames' lighting ingenuity. For one thing, he had none of the luxury lighting equipment of Hollywood studios. He had to get around the limitations of low ceilings of the apartment in which a great

(Continued on Page 437)



ON SHOOTING crew for "Jigsaw" on natural location, Don Malkames, A.S.C., had none of the freedom of studio sets where walls may be moved or a crane used for a moving camera that Don Malkames' (seated behind camera) uses up a dolly that is director Franchot Tone's custom. The action.

WHEN KARL FREUND, A.S.C., begins his next camera assignment at Warner Brothers Studios, he will inaugurate for the first time an improved method of production on the set that will greatly speed up daily schedules and at the same time tend to ease the many complex problems of the director of photography.

The method, humorously dubbed "the Karl Freund Contract Lineup System," will put shooting schedules on more of a business basis and save the studio considerable time and money on each production. The savings will come as a result of estimating and contracting each time a new scene is to be lined up.

Here is how the method will work:

Before lining up the camera for the next scene, the director will rehearse the action so the cameraman may observe its scope and plan his lighting accordingly. Position of the players will be marked as a guide to placing the camera. The director, together with the cameraman, gaffer and head grip will discuss the new lineup and estimate the time that will be required to move the camera to the new position, change the lights, erect any necessary parallels, move walls, etc. After the estimate is approved by the director, steps will then be taken to make the necessary changes within the stated time. Say the estimate is 40 minutes. Once ok'd and accepted, this estimate becomes a "contract" binding upon cameraman, grip and gaffer to effect the changes within the time allotted upon it. It also obligates the assistant director to have his players back on the set at the end of the 40 minute period, checked by the hairdresser and makeup man and ready to go before the camera.

The time element of the estimate then becomes a factor guiding all concerned with the production—from grip to set—during the lineup interval. For once, clock watching will be encouraged. Promptness on the set will be a large, portable electric clock operating the same as do clocks on gradation scoreboards. In other words, the clock will show the number of minutes remaining in the lineup interval. As the moving hand of the clock reaches the ten minute mark, a warning bell will ring automatically, calling attention to the time remaining. This will serve the important purpose of calling all players back on the set and especially it will afford them ample time for a final check-up of makeup, hairdresser and costume before again facing the camera.

In actual practice, when the clock ticks off the last of the 40 minutes, players will be on the set, set lights will be lit, and the camera ready to roll—unless, of course, something unforeseen occurs to upset the schedule. The director, for instance, after examining the newly completed lineup, may decide that he would rather shoot the scene from a different



AN UNHAPPY camera crew is a happier, more efficient crew, believes Karl Freund, A.S.C. (left foreground), who uses in his new contract lineup system a more practical method of computing accurate lineups that will show marked savings in production costs.

Karl Freund Introduces The Contract Lineup System

**Less lost motion and more economy to result from
system of effecting camera and lighting changes
based on approved time estimates.**

By RALPH LAWTON

angle. In such case, the cameraman and crew will be credited with one complete lineup—the same as if the scene had been photographed—and a new and different lineup planned, estimated and contracted for.

Essentially, however, this Karl Freund Lineup System will have the effect of eliminating just such time-wasting and cost-consuming delays, because the director and cameraman will discuss the scene and its lighting and photographic requirements more thoroughly before the lineup is attempted. It will behoove the director to more carefully consider the

cameraman's suggestions as regards lighting, composition, etc., and to make comparisons to advance between the cost of an elaborate setup and a less time-consuming one.

Say, for example, that the director indicates a position for the camera that will require adding a ceiling piece to the set and illumination for two windows. The cinematographer, perhaps with a more practical camera eye, may suggest moving the camera five feet to the right or to the left, thereby eliminating need for the ceiling piece and the lighting for one win-

(Continued on Page 428)



THE SPELLEROLLER jacks are relied against the flat or wild wall. Hooks on the vertical bar engage the two horizontal barfens and when the counterbalanced lever is depressed, the wall is easily lifted a few inches off the floor and wheeled into place.



ONLY ONE MAN is required to operate a jack. Where large walls are to be moved, one or more jacks are used. Noting how heavy barfens are employed, the counterweights automatically adjust themselves so that weight on all jacks is equalized.

MOBILE JACK FOR MOVING WILD WALLS

Boon to the 16mm. film studio and small independent producer is the "Spelleroller" which makes possible the moving or replacing of flats or wild walls in a matter of seconds, using only one or two men.

By FREDERICK FOSTER

A SINGLE stagehand in British film studios can now lift and move a flat or wild wall in less time than has heretofore been required by a company of grips or laborers, thanks to the inventive genius of George Speller, chief of construction at Ealing Studios, London.

Early one of the most effective time-saving devices yet introduced in motion picture studios, the gadget, known as the "Spelleroller," is now being used in at least six British studios, according to *Film Industry*, British studio trade paper.

The small independent studio in this country and especially the 16mm. industrial film studio, where both stage space and manpower are invariably limited, will undoubtedly find the Spelleroller useful as well as time-saving.

Designed to overcome the difficulties of moving scenery on the set and from one part of the set to another, Speller aimed

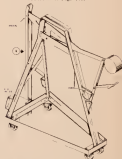
to tackle the task about two years ago. He had his blueprints and full scale working model completed a year ago, and the first Spellerollers were put into practical use on the stages of Ealing Studios last November.

The success of the Spelleroller was immediate. It was soon found that a wild wall, which at one time would have taken eight men something like ten minutes to move into position, could be wheeled in on the set by two men in fifteen seconds, using the Spelleroller, and in addition the time required for fitting sets together and dismantling them was considerably reduced.

Eight "rollers" or jacks, as they are sometimes called, are now in use at Ealing, and twenty-two have so far been sold to other studios. They are now in use at Denham, Pinewood, Highbury, Welwyn and at the A.B.P.C. studios at Elstree.

"I went along to see them in action," writes a *Film Industry* correspondent, "and before I had even spoken to Mr. Speller about them I had an example of their efficiency. We were on stage 3B. The scene was the bedroom in which some of the most dramatic action of the picture takes place. The scene finished, a 36-foot flat had to be moved. It was out of the way in a matter of moments, moved by the sturdy men. Three Spellerollers were hooked onto the flat and the long section of wall was wheeled from the set with almost unbelievable ease."

(Continued on Page 436)



THE SPELLEROLLER is constructed of channel steel and fitted with 4 wheel casters. The vertical bar "A" is fitted with a hook at top and bottom which engages barfens on walls or flats. When the operating lever is depressed, this bar rises vertically to lift flat off the floor.

The Officers and Staff
of
J. E. BRULATOUR, INC.
extend to
ALL CINEMATOGRAPHERS
Everywhere—

HOLIDAY GREETINGS
and
GOOD WILL
For
The Christmas Season
and
The New Year—

The 16-mm Maurer—

Maximum Flexibility

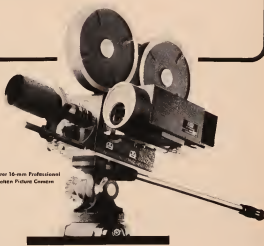
Simplicity of design, compactness of construction and accuracy of operation make the Maurer 16-mm Camera unsurpassed in performance for normal studio shooting.

Its extremely accurate framing and registration, together with the critical focusing system, make it particularly suited for animation. An animation motor is available.

Its light weight and rugged construction make it unexcelled for location work, especially where shooting is under difficult conditions.

Its flexibility is increased by a choice of several motor drives; by extension tubes for high magnification purposes, by a clamp, by horizontal, vertical and circular masks.

A new catalogue of Maurer post-war equipment will be furnished on request.



Maurer 16-mm Professional
Motion Picture Camera

**16mm
maurer**

J. A. MAURER, INC.

37-07 31st Street, Long Island City 1, N. Y.

Professional Motion Picture Cameras and
Recording Equipment for the Production of
Industrial, Educational and Training Films

Banish The Shadows

How to make and use reflectors which enable you to put sunlight anywhere in a scene, eliminate shadows and generally improve your photography.

By ARTHUR ROWAN

THE FIRST time you use a reflector in shooting movies out of doors, you will have taken a big step toward giving your photography professional quality. Despite clear sunshine and an attractive subject or setting, it isn't always possible to get satisfactory lighting unless you employ some means for reflecting sunlight where it fails normally to reach your subject. Where a broad-brimmed hat casts a deep shadow to obscure subject's face or where subject stands in partial shade, a reflector will do wonders at throwing light into the shade to effect an acceptable exposure.

Few exterior shots are ever made by professional cinematographers without the assistance of either one of two aids for augmenting sunlight—reflectors or booster lights. The latter are simply big studio lamps moved out of doors and used to project strong artificial light into the scene. The first—the reflectors—are large panels of plywood, perhaps 4 by 5 feet in size, coated on one side with aluminum paint and on the other



TODAY the professional cinematographer uses reflectors on nearly all outdoor shots. Throwing in a shaded location a gentle radiance by use of reflectors which direct sunlight into the shadow side of the scene balances the lighting.

with silver leaf or aluminum foil. The painted surface throws a soft light while the surface covered with silver leaf or foil is used when stronger reflected light is desired.

Reflectors have been used since the early days of silent pictures and are essentially the same as when first placed in use years ago. The method of using them, however, has advanced. Today, the Hollywood cinematographer mounts many of his reflectors on standards which enables him to direct reflected light from a higher and more natural angle. Sunlight, even when the sun is low, comes from overhead, therefore reflected sunlight should fall upon the scene from above rather than from ground level. Reflectors are now used at ground level only when special lighting effects are desired.

Reflectors are standard equipment for camera crews shooting western pictures, especially when filming chase scenes. Mounted on sturdy tripods around the camera car, reflectors maintain uniform lighting on the mounted players as they gallop along side or behind the rolling camera car. For such shots, the use of booster lights obviously would be impractical. Where western locations are far removed from the studio, reflectors invariably augment the sun or provide well rounded illumination for exterior sets as well as the players.

Use of reflectors can prove just as important to the amateur movie maker. When carefully used, one can balance outdoor lighting to effect the most professional-like exposures in shooting movies in the garden of the baby or other members of the family, placing a reflector to one side so it faces the sun and then adjusting the angle to throw light toward the shadow side of your subject, will result in tremendous improvement in your movies, whether color or black and white.

(Continued on Page 428)



EXAMPLE of good use of reflector to lighten subject's features when photographed against the sun. By using reflectors you can photograph your subjects in almost any outdoor location and facing any direction you desire. The reflected light will melt unwanted shadows.



THE SOURCE: Illumination in this scene supposedly comes from the lamp on the table. A junior spotlight concealed with a show-colored gelatin (left) simulates that source in the background part of a backdrop with a light behind it is set up to cast a paper pattern on the background and thus break up the expanse of bare wall.

special effects because they require more precise handling than oil-screen units used for photographic illumination.

A lamp shown in the scene must give the illusion of being the source from which the players and set are lighted. It must therefore be brighter than anything which it illuminates. In order to achieve this effect, ordinary light bulbs are usually replaced with No. 2 Photofloods, and a sufficiently dark lampshade is used so that the photoflood will not "burn up" the area of the screen. Spotlights used for actual illumination must be placed so that they simulate the direction and quality of the light that would normally be given off by the lamp shown. Also, these spotlights should be located in such a way that the closer the players approach the lamp, the more brightly illuminated they will be.

Under the subject of special effects lighting we must consider a style of set illumination known as area lighting. As the name implies, this is the type of lighting set-up in which only selected areas or planes of the set are illuminated, the rest being allowed to fall off into darkness. This style is much more widely used in the photography than in the commercial feature, but it has its applications in sequences that demand unusual mood or harsh realism. The important thing to remember is that the light falling on the illuminated areas should seem to be coming from a logical source, such as moonlight coming in a window, lamps supposedly situated in another room, etc.

Projected shadows create effects which can be a great boon to the commercial cameraman, since they not only add greater realism to the scene, but can sometimes be used to simulate the atmosphere of large and unusual settings. For example, let us suppose that the script calls for an office setting. The set is dressed with appropriate furniture and props authentic in every detail, but somehow the illusion of a real office is still lacking. In order to add the needed touch, the cameraman sets up a large venetian blind just out of camera range and shifts a junior and senior spotlight through it. The horizontal shadow pattern projected on the wall then completes the illusion of an office high up in a building with sunlight coming through the window.

Sometimes a cleverly executed shadow pattern can create the illusion of a whole set. For example, a church can be suggested by projecting a Gothic window (cut out of cardboard) onto a bare wall in the background. Other types of sets might be suggested by projecting cut-outs of various types of windows, prison bars, grillwork, etc.

Sunlight and moonlight effects require special setups which are routine in the studios, but which may seem tricky to the commercial cameraman at first. Sunlight

(Continued on Page 436)

Special Effects Lighting For Commercial Films

16mm. industrial films often demand more effect lighting than entertainment films in order to lend greater visual impact to the product or service the films aim to exploit.

By CHARLES LORING

THE FUNCTION of special effects lighting in the 16mm commercial film is not to achieve results that are tricky or consciously "arty," but to add greater realism and drama to the presentation of the idea, service or product which the client wishes to sell to the audience.

The more effective commercial films are veering sharply away from the stereotyped "business film" approach and are concentrating more definitely upon realistic human interest situations. To the technician, this means that sunlight coming through a window in the scene must look like sunlight, that firelight from an open fireplace must flicker realistically upon the faces of the characters who are

shown roasting the client's mandarin oranges, and that when table or floor lamps are shown as the source of light in the scene the players must appear to be lighted by those lamps.

The first rule to be observed is that special effect lighting should never call attention to itself. Even in the more extreme cases which we shall discuss, the lighting should always be subordinated to the action in such a way that it adds to that action, but never overwhelms it.

Let us consider first the use of lamps or other lighting units which are shown in the scene as apparent light sources. These units are known as practicals and we include them in our discussion of

INDOOR LIGHTING EQUIPMENT Here's a gift that will find excellent use the very first thing Christmas morning. Kodak Van Beem Spotlight, as you name it, the Van Beem Standlight, and two photofloods provide all the lighting equipment needed for wonderful indoor movies. \$25.43 buys the whole outfit, lamps and all. The two selector Kodaflector—only \$8—do an inexpensive and capable alternate

CINE-KODAK TITLES provides the easy way to home title making. You simply attach your camera to the base so as to align it with the Title's built-in lens, slip a lettered or typed card into the rack, and press the exposure button. The result—storytelling punctuation that adds so much to personal movies. One Kodak Title, complete with a supply of title cards, costs only \$3.75, including Federal Tax

SLIDE ATTACHMENTS Alters, Folds Screen boards, and supplementary lenses incorporate view accessories that can provide extra range in movie making, especially in personal movies. Kodak slides attachments in W and Z mount the standard lenses of many Cine Kodak cameras. Unmounted cells for a part of Kodak Combination Lens Assembly. From \$1.31, Federal Tax incl.

For a Merry

Movie

Christmas



Cine-Kodak accessories are gifts that are sure to carry the day in any movie household. If there's a cineamateur on your Christmas list, you can do no better than to send a gift that will add to the whole family's movie enjoyment.

Check these gift suggestions... then check with your Kodak dealer. And, by the way, if your own gift is a problem, you can help your family to a wonderful solution... just by leaving the magazine open at this page.



CINE-KODAK EDITING EQUIPMENT is complete outfit like the Cine-K Master Editing Outfit and the Cine-K Senior Editor, along with the Kodak Splicer or the Editing V (both part of the Outfit), and with the editing accessories in film clips, end caps, and pins. Prices range to suit budget—from 10¢ for film clips to for the complete Master Editing

NOW TO MAKE GOOD MOVIES Here's an ideal gift for every movie maker. This "movie best seller" tells the full story of fun with personal movies, provides sufficient detailed "how to do it" information for a movie lifetime. Yet it does it in so light-hearted a manner that the hands move around in delightful freemove reading. Over 900,000 copies sold—and still going strong! Only \$2.

Prices are subject to change without notice.

ACCESSORY LENSES Long-focus lenses, by magnifying the central portion of a scene, make possible close-ups from well back—or suitably magnified movie studies from close in. Wide-angle lenses widen the field of view... capture the whole scene when you just can't move back. Kodak Cine-Ektar Lenses start at \$87.50. Kodak Cine-Ektar lenses, at \$43.75. Prices include Federal Tax.

**Eastman
Kodak
Company**

**Rochester 4,
N. Y.**

Koda



BACKGROUNDS are over a problem in shooting industrial films on location. Here location manager made the situation with painted plywood that placed behind machine being photographed.



SKILLFUL lighting enabled Higgins to photograph this display of machine motor motion as they appear as the real thing on the screen. Effect was heightened by slow-draw shot.

Glamourizing Nuts And Bolts

TO THE 16MM. cameraman, a "nuts and bolts" picture is one of those industrial trip through the plant's or mechanical instruction films. It may be very interesting as to subject matter, but often can be dull as well as difficult photographically. The average factory with its assortment of hobbing machines and grinders, punch presses and lathes, all painted in various shades of dull gray

Unique lighting and skillful use of color add pictorial interest to 16mm. industrial film that shows how motors are made.

By ALFRED HIGGINS

Chief Cinematographer, Rockett Pictures, Inc.



TYPICAL of location problems encountered by the cameraman is shooting within the machine factory was this narrow, dimly-lit corridor. To avoid depth, scene was lit as several planes and camera lens stopped down to give sharp focus from foreground to background.

and black do not offer much in the way of pictorial interest. As if this weren't unattractive enough, the cameraman is also limited as to his compositions. The possibilities for striking angles are lessened because the set-ups must not be chosen for the best artistic effect, but to most effectively show the operation of each machine.

When Rockett Pictures, Inc., was asked to make a film for U. S. Motors, we assumed that this would not be just another factory movie. From the very beginning it was felt that the story should not only be well told, but should be pictorially interesting as well. Director J. Richard Westes and writer Daniel Downer were keenly aware of this, and throughout the preliminary planning we explored all possibilities for adding to the picture's visual appeal.

Backgrounds are the major stumbling blocks in shooting within the average factory. Lighting each machine is relatively easy, as is the background—the background that stretches out for half a block. It would take the resources of a

major studio to illuminate the vast expanse, so the usual procedure is to light the foreground and let the rest fall into abyssal blackness. On the U. S. Motors' picture, in order to block out undesirable backgrounds and to add a warm tone to the colorless subject matter, five flags were painted a pleasing tan shade and used as portable backings. These could be moved from one location to another and used singly or together to effectively solve the problem of underlit backgrounds.

One of the main shots in the picture was the easiest to shoot. The script called for a scene of a red hot gear being removed from a molten air bath. It was found that when using enough light for a normal exposure, the redness of the gear completely disappeared and photographed as black. To overcome this, the set was lit about two stops below 2/19 exposure and all light "gobbed" off the gear and the glowing air bath. This low key lighting gave just enough detail to outline the workman, but allowed the points of interest to register in their true color. The glowing redness of the gear

against a very dark background had a dramatic quality that would have been lost had it been photographed normally.

There were many scenes that called for close-ups of various types of gears. To avoid a static quality we used a variety of techniques to enhance what could have been a series of dull shots. The gears—especially cadmium plated for the picture—were photographed against red, blue, and green backings. The bright silver against these vibrant hues provided striking color combinations. For one close-up, a large gear and pinion were mounted on a motor driven turntable. One light was placed low and to the front so as to cast shadows of the gears on the background, while another light with deep red gelatin was used as a three-quarter backlight. As the turntable revolved, the bright red light flaked on the shiny surface of the gears and then onto the rotating shadow. The same turntable was also utilized in another way. Several gears were placed at intervals around the circumference and the camera lined up for a low angle so that as each gear came forward it completely filled the screen. Those in the background were left in silhouette against a colored backing, but became fully lighted as they moved up to full screen. These scenes took time to arrange, but the results were well worth it.

To illustrate the workings of an electrical motor, it was necessary to photograph a model. This model consisted of cadmium plated gears in loose mounts all of which stood out very nicely when photographed against a mottled backdrop. The loose weave of the backdrop registered beautifully on film and the texture is apparent at considerable distance. To give movement, the model was revolved while the camera dolly from a full shot into a closeup of the part to be emphasized. In other scenes, we dimmed the lights on one section while bringing up the lights on another part to point up various features of the motor. By using camera movement and lighting, these sequences were never allowed to become static.

In one of their advertising campaigns, U. S. Motors made up some small plastic dummy motors about three inches long. A shot was made of these that proved so effective it was used for the fade-out scene. Story of these maneuvers were lined up in several rows and the camera mounted on a dolly, was pointed straight down on them. At the beginning of the shot, the camera is centered on about six. We then pulled upwards until all of the motors filled the screen, giving the impression of a huge warehouse display of real motors.

The opening scene in the picture shows an industrial designer seated at a drawing board working on a blueprint. To his right in with this first shot, they were rendered on blueprint paper. The first one

"PROFESSIONAL JUNIOR" CAMERA EQUIPMENT

Interchangeable - Removable Head Trisoids

FRICION TYPE

Handles 15mm. E. K. Cine Special with an optional slider. 15mm. DeVry 10/11 Eyemote with motor and 100 magnets and all 15mm. hand-held cameras. Head is interchangeable with the Gear Drive head. Both types fit "Professional Junior" standard tripod base "H-Hat" and "Hole" 10mm. tripod base.

GEAR DRIVE

The head, made of Dow Metal magnesium, weighs but 2 1/2 lbs. and is interchangeable with the Friction head. It handles all types of cameras. Stop-an-act control. Stop-an-act control and film action from both sides. Worm-driven gears are DeVry 10/11 gears.



STANDARD TRIPOD BASE AND COLLAPSIBLE ADJUSTABLE METAL TRIAZOLE

BLIMP for 16mm. E. K. CINE SPECIAL

This Blimp constructed of Dow Metal magnesium, is thoroughly insulated to afford absolute silent operation. Exclusive features: Follow focus mechanism permits change of lens focus while camera is operating in blimp. Blimp takes synchronous motor drive which couples to camera. A dovetail bracket is provided to mount an erect image viewfinder.



SUNSHADE & FILTER HOLDER COMBINATION



For use with Bolex and Cine Special 15mm. cameras. Holds two 2 1/2" sq. glass filters and a round 2 1/2" Polaroid Screen with handle which can be rotated for polarization. Covers all lenses from 15mm. to 6" telephoto and eliminates need of various filters. Precision made of the finest materials. Compact, simple to interchange and dismount. May be permanently affixed to camera or quickly detached.

—ALSO AVAILABLE—

BABY TRIPODS

CHANGING BAGS

3 WHEEL PORTABLE DOLLIES

"HI-HATS"

Send for our catalog. It describes all our products completely

FRANK C. ZUCKER
CAMERA EQUIPMENT CO.
1600 BROADWAY NEW YORK CITY

Roster

American Society Of Cinematographers

DECEMBER 1, 1948

RESIDENT MEMBERS

L. B. Abbott
David Abel
Lloyd Allen
John Alton
Wesley Anderson
Lucien Andrieu
Arthur Arling
John Arnold
Jerome H. Ash

Lucien Ballard
George Barrow
R. O. Barger
Joe Basso
Charles F. Boyle
John W. Boyd
Edward Brindel
Norbert Brodsky
James S. Brown, Jr.
Robert Burks

Walter Cande
Philip Chandler
Dan B. Clark
Charles G. Clarke
Wilfred Cline
Russell Collins
Stanley Conna
Leo Corry
Edward Crispien
Floyd Crouse
John Crouse
Russell A. Cully

Wm. H. Daniels
Mark Davis
Robert deGraauw
Clide DeVries
F. B. DePue
Elmer Dyer

Paul E. Eager
Arthur Edison
A. Fawcett Edson

Max Fabian
Daniel E. Fapp
Vincent Ferris
Ray Ferretson
Frank Finger
Rella Flora
George J. Foley, Jr.
Ray Foster
Henry Franklin
Karl Foyed
John P. Fulton

Glen Gase
Lee Gaudes
Maury Germain
Alfred L. Gella
Irving Glassberg
James Gordon
W. Howard Greene
Jack Grosshale
Lloyd Griggs
Barrett Guttery
Carl Guthrie
Harry Halpinberg
Ernest Haller
Sol Halperin

Edwin Hanczarek
Ralph Hanswara
Russell Harlan
Byron Harlan
Sol Haskin
Wesley Hoch
David S. Hordley
James Wong Howe
Ray Hunt

Alvin E. Irving
Fred Ivano

Fred H. Jackson, Jr.
Fred W. Jackson
Harry A. Jackson
H. Gordon Jennings
J. Downman Jennings
Ray Jones

W. Wallace Keller
Glen Kerchner
Ben H. Kline
Lloyd Knecht
H. F. Kunkin
Milton Kuster

Charles D. Lang, Jr.
Joe LaSalle
Ernest Lando
Charles C. Lawton, Jr.
Paul K. Layton
Maurice LePore
Lancel Landon
Leo Lipson
Harold Lipton
Arthur Lloyd
Walter Lunda
Wesley E. Lynch

Joe McDonald
Jack MacKenzie
Glen MacWilliams
Fred Mundt
J. Perotti Marley
Charles A. Marshall
Harold J. Mason
Rudolph May
Ted McCord
Wm. C. McKier
Ray Mercer
John J. Mervin
K. L. Mervin
Arthur Miller
Viggo Miller
Viggo Miller
Hui Mohr
Bro H. Murgas
Nick Mowbray

Harry C. Neumann
L. William O'Connell
Ray Overbaugh

Ernest Palmer
Harry Percy
Gus C. Peterson
R. W. Pinck
Robert H. Plank
Frank Plank
Sol Polak
Gordon B. Pollack

Frank Redman
Ray Remondin
Irving Ross
Irisia Roberts
George H. Robinson
Guy Roe
Leo R. Ross
Jackson Rose
Charles Risher
Harold Rosnan
Joseph Rutenberg

Charles Salzman, Jr.
George Schneiderman
Charles Schenbaum
John Sears
Leon Shattney
Henry Sharp
William A. Scherer
Allen Singer
Wm. V. Skall
Jack Smith
Edward Snyder
Wm. E. Sander
Ralph South
Mark Svinger
Clifford Stone
Annie J. Stout
Harry Stalling
Walter Strong
Karl Struss
Robert L. Swines

Philip Tamm
J. O. Taylor
George Temple
Ted Terrell
Stuart Thompson
Robert Tolson
Leo Tover
Thomas Towler

Joseph Valentine
James C. Van Tass
Paul C. Vogel

Joseph Walker
Gulian Warrenton
Albert Werner
Lester White
Harry Wild
Wm. N. Williams
Ken Winger
Dewey Wrigley

ASSOCIATE MEMBERS

Steven Allen
Mark Armstrong
Cecil Bardwell
Edgar Bergs
Louis A. Bess
L. M. Bonds
J. L. Coocant
Gentile Cove
Wm. T. Craggall
Edward P. Curtis
Ralph Farkas
Fred W. Gage
George H. Gilman
Wm. J. Gorman

Carl Leon Gorman
Herbert Griffin
A. J. Gurnea
Emory Hise
Lloyd A. Jones
William Leach
Safely Lund
Frank McAvoy
J. H. McNeill
Dr. C. F. K. Meier
Lewis E. Miller
Pier Mole
Helen Meyer
J. K. Numan
Dr. Kenneth Potomac
H. W. Rimmshold
Elmer C. Robinson
Paul J. Ross
Robert Riley
Loren Riley
De V. H. Scott
Perry L. Shattney
Safely P. Selow
Dr. James S. Wilson, Jr.
James R. Wolfson
E. A. Wolford
William V. Wolfe

NON-RESIDENT MEMBERS

Charles E. Bell—St. Paul, Minnesota
Gordon Bennett—Braun
O. H. Bernhardt—England
Jack Bird—England
S. C. Chick—China
Ole Corneille—Sweden
J. Burg Coates—New York, N. Y.
John Dore—Europe
Mar B. DuPont—Tokyo
Hume J. Edwards—Quebec City, P. I.
Frank E. Roberts—Yonkers, N. Y.
Charles Hennen—New York, N. Y.
Rand N. Haythorn—Tucson, Arizona
Charles W. Herbert—Tucson, Arizona
John L. Heston—New Orleans, La.
Eric Harvath—South Africa
Wm. H. Jones—Miami, P. I.
Don McCombs—Tucson, N. Y.
Loan Page—France
Ted Public—Spain
Paul Perry—California
Alan Phillips—Mexico
Bob Roberts—South America
Robert Riddle—Chicago, Ill.
James Sotter—Philadelphia, Pa.
William Stewart, Jr.—Café Park, N. J.
Frederick Siskin—Thailand
Nicholas Toporkoff—Toscan
Frank C. Zucker—New York, N. Y.

INACTIVE MEMBERS

Fern Deen
Joe A. Doherty
G. Fred Johnson
Douglas Shorer

HONORARY MEMBERS

E. O. Blackman
A. S. Howell
Lt. Colonel David MacDonald
G. A. Marshall

in of the motor. This is then rolled back to disclose the presentation slide. Each slide was handled in this manner and the slides turned through into the picture. As our story concerned the designing and manufacture of these motors, an opening of this type keyed the entire picture.

The conditions under which industrial pictures are made run from one extreme to another. One major problem was solved when we used flats for backgrounds, however, the most difficult shot was of a cramped shelf-lined corridor filled with gears stacked almost to the ceiling. Lighting this long, narrow set meant housing six 3000 watt sensors in the rafters. Two more sensors were used near the camera which served as fill lights in order to lead a feeling of depth, the scene was lit with several planes of light. High intensity illumination was necessary so that the lens could be stopped down enough to carry focus, as the script called for both foreground and background action.

Commercial Kodachrome film was used throughout the production and it proved ideal because of its wide latitude. Those scenes showing bright shiny gears mounted in black machinery, recorded faithfully. Even with this extreme contrast, the highlights did not "wash out" and there was surprising detail in the blackest machine. Lighting equipment for the factory shooting consisted of eight sensors, several juns and numerous No. 4 photofloods. When it was necessary to mix daylight and artificial light, McClellan was used to control the color balance.

What could have been a routine picture turned out to be an interesting assignment. Through careful preliminary planning and imaginative shooting, we added much to the pictorial interest of this "run and bolt" industrial film.

MOBILE CAMERA LAB

(Continued from Page 410)

thermostatic heat control and electric refrigeration, also safelights, running clock and all the necessary accessories usually found in a modern darkroom. There are contact printers for both 4-by-5 and 8-by-10 roll pictures, an enlarger and printer for motion picture film, and air blowers for drying. The film loading board and film storage for both raw and exposed stock are fitted across one end.

With such complete facilities on location, spot film runs are easily made under approximate studio laboratory conditions. Film magazines may be unloaded as the film is used and the footage "canned" immediately for shipment to the studio when the magazines are reloaded with new stock and made ready for use again. A considerable saving is effected in eliminating the wastage of short ends.

Careful cleaning and inspection of cameras is more important on location

USED 35mm. & 16mm. CAMERAS

EYEMO 71A 2" Eumax F4.5 case	\$155.00
EYEMO 71A 15mm Cooke F2.8 case	287.00
EYEMO 71A 15mm Cooke F2.8 case	375.00
EYEMO 71C Compact Turret 35mm	
Eumax F2.5 17" F4.5 remote case	175.00
EYEMO 71K 2" Eumax F4.5 case	292.50
EYEMO 71K 2" F4.5 & F4.5 case	342.50
EYEMO 71K 2" Eumax F2.8 case	355.50
EYEMO 71K 2" F4.5 all 24v motor	325.00
EYEMO 71K 2" Cooke F2.8 case	362.50
EYEMO 71Q 3" F2.8 100mm F2.8	
150mm F2.8 3 pin finder 110v	1285.00
EYEMO 71Q 35mm F2.5 F2.8 100mm	
F2.8 12v motor 150mm F2.8 mag	1185.00
EYEMO 71P 25mm F2.5 45mm F2.5	
100mm F2.7 110v AC-DC motor	950.50
lockdown	
ARRIFLEX, High Master Princeton	
35mm F1.9 50mm F1.5 75mm	
F1.9 2-200 ft mag case	725.00
ARRIFLEX Auto Pan Tachar 32mm	
F2.5 50mm F1.8 120mm F1.9 2-200	
ft mag case	895.00
ARRIFLEX Carl Zeiss Sonnar 35mm	
F2.5 50mm F1.5 85mm F2.2 2-200	
ft mag case vertical bellows latest	1230.00
model	
CINEPHON New model built in the	
water tankwater adapter screw	
ing lens internal 350 ft mag	
case 45mm 50mm 40mm	
35mm 75mm F2.3 Acme lens	1250.00
CINEPHON New model all above this	
type can built in adapter and case	
Sonnar 35mm F2.5 50mm F1.8 15mm	
F2.3 Acme complete	1795.00
DE VRY Hand 15mm 120mm 120	122.50

DE VRY Hand 15mm 120mm 120	122.50
DE VRY Hand 15mm 120mm 120	122.50
DE VRY Hand 15mm 120mm 120	122.50
ARRIFLEX Princeton 35mm 110v	165.50
100 5-200 ft mag	120.00
MITCHELL standard outfit	145.00
HILL & HOWELL tachar with L.N.	1400.00
CINEPHON Studio camera in home	1450.00
MOORE RICHARDSON Daily ME	1100.00
ground head	750.00
MAILING LIST for Mitchell	
16mm	
FILMO 70A 1" F2.5 Cooke case	79.50
FILMO 70DA Special 200 ft mag	
12v motor 3 lenses	857.50
FILMO Specialized 128 FPS 1" F1.8	247.50
CINE SPECIAL chrome 1" F1.9 lens	
case	492.00
CINE SPECIAL black 1" F1.9 L.N.	
CINE SPECIAL chrome 1" F1.9 L.N.	585.00
SOLIX Prima counter 1" F1.9	385.00
AURICOM 1770 Sound camera with	
variable frame 1/4" 1/2" 1" 1.5"	769.50
slide button 1" F1.5 lens control	
BENET MAUREL sound camera with	
1" 4 lens turret motor 400 ft	4550.00
mag complete outfit optional	
also in stock	
All types 16mm 120mm lenses All accessories	
including	
NEW ARRIFLEX tripod for hat	1195.00
AURICOM sound-camera makers (import)	
HOLLYWOOD IR penlar	
CAMART tripod	
RACHSHELL MOUNTING sunshade	
MAUREL-HANCOCK new tripod	
All MOUNTING & MOUNTING products	
SELL & HARVEY printers (import)	
PRINTERS, sound producers	
CAMART in electronic books	
See you at our booth nothing lost!	

THE CAMERA • MART, INC.

70 WEST 45TH STREET
NEW YORK 19, N. Y.

WORLD-WIDE SERVICE
CABLE ADDRESS: CAMTRAMART

T-STOP LENS CALIBRATION SERVICE

(Transmission)



for
still
and
motion
picture
camera
lenses

★

In color cinematography, carefully matched lenses are a necessity for consistent exposure results. Under the T-Stop calibration system, variations between different lenses are eliminated. A stop of f/8, for example, admits the same amount of light regardless which lens is used. Photo Research Corp. is the only commercial laboratory on the West Coast equipped to calibrate your camera lenses in T-Stops.



Write For More Details
PHOTO RESEARCH CORPORATION

5454 Harold Way Phone BR1442 1854 Los Angeles 27, Calif.



A SECTION of discarded fluorescent lighting tube plus a length of boom stick make an ideal quick developing unit for processing short lengths of test or title film. Secure film to end of stick with thumb tack, run it parallel with stick and secure at other end with another thumb tack. Fill tube $\frac{1}{4}$ full of developing solution and insert film and stick.

EDITING AND SEWING boards that juggle about while you work can be made secure by fastening four rubber suction cups to the under side—one at each corner.

TO MAKE SMOOTH SCROLL reels, use wrenge of the family washing machine to move the title strip before your camera. Insert top of strip between rollers, set up and focus camera, then start motor and run camera until entire title has been photographed. To keep title strip taut, attach weight to bottom.

TO SPEED UP COMPOSITION of titles where block letters are used, cut a number of slits same height as letters in a 10" X 14" sheet of cardboard. This forms a template or guide for your lettering. Arrange letters in the slits. When title is completed, lift template and photograph title.

TO PROTECT FINISH of your camera tripod make a simple carrying case of canvas with an opening at one end. Finish with a drawstring closure or fit a standard zipper closure, obtainable from any dress store. Insert tripod and determine position for adding a carrying handle. This should be located on the long side and at a point where the tripod is in balance. Make handle of a strip of canvas, folded and stitched to add strength.

TO MAKE TITLES WITH moving backgrounds, mount block letters forming title row on a clear panel of glass. Erect glass before the camera at a distance that will insure sharp focus for lettering. To bring background into sharp focus also, shoot title at smallest aperture possible. Mounting title letters on glass in door or window of your automobile will solve the problem of mounting the glass before the camera.

SHOOT A FEW FEET of a pure color sample card, using Kodachrome or Ansco Color film, if you wish to check the color reproduction qualities of your camera lens. Compare the screen smokes with original colors on the card.

than when cameras are used in the comparatively dust free air of the studio stages and for that, special equipment is provided in the Mobilab. A special compartment opens from the outside and provides a working bench for camera inspection. There are two 2000-pound tanks of compressed dry air for cleaning purposes as well as a vacuum unit for removing dust particles from interior of camera.

The storage compartment of the Mobilab is designed to accommodate four standard Mitchell motion picture cameras, their necessary accessories, and complete still photographic equipment. Locking metal rack hold the equipment securely in position for traveling. Delicate parts and camera lenses ride on sponge rubber mats that absorb vibration. Any camera equipment that ordinarily would be available at the studio is made easily accessible to the camera crew on the location unit.

For electric power, the unit is equipped to plug into any A.C. current source. Five hundred feet of cable is carried for this purpose. Where an A.C. power line is not available on location, 110 v. A.C. current may be supplied by the Mobilab's own gas-motor generator. A fifty-gallon storage tank affords an adequate supply of water when on remote locations where running water is not immediately available. And finally, the entire Mobilab unit is air-conditioned. Film is thus stored under proper temperature at all times.

The Mobilab also saw 'dry land' location service for the first time recently when it was taken on a location two 760 miles from the home studio in Burbank for executives for "The Fountainhead." Reports submitted by the unit manager as well as the cameraman and his crew attest to the unit's ability to revolutionize the camera department's work on location making for convenience and higher quality work. This might appear an overstatement unless the unit is contrasted against the methods previously followed in full filling air functions.

Hitherto, camera equipment for location work was loaded on a truck for transportation from the studio to the location base of operations. More often than not, it was then necessary to further transport the equipment from the base to the actual shooting site each morning, then bring it back at night. Mileshift darkroomes were secured or contrived at the location base. There, after the company finished the day's shooting, the assistant cameraman unloaded the exposed film from the magazines and carried it, reloaded the magazines with new film sufficient for the next day's shooting, and serviced his camera. These operations added at least three hours work to his already work-crowded day, in addition to the two hours usually put in transporting camera, film and equipment from the base to the location site. Similarly, on a lesser scale, the still cameraman required two additional work-

ing hours to handle his film and cameras.

For emergency magazine loadings at the location site, the cameraman was provided with a light-proof changing bag. For making film cuts, he had to use a test box. His bag problem was to keep his developing solutions at the required 68 degrees temperature. Naturally, he had no drying or pressing facilities, nor any adequate means of cleaning his camera and lenses. Little wonder then that Warner Brothers' cinematographers and their assistants are lauding the Mobilab.

Back in 1940, McGreal—who previously had designed the first camera equipment trailer for use on Warner Brothers' sound stages—had worked out initial plans for a possible film laboratory and complete camera unit for location work. With the outbreak of war, however, execution of the plans was temporarily abandoned because of material and equipment shortages. Subsequently the army and navy developed a similar unit for servicing photographic branches of the services in the field. McGreal's Mobilab camera unit was later developed from one of these secured through war surplus.

All interior fittings of the original were removed and replaced with fittings expressly designed by McGreal for motion picture location work. Now that the firm Mobilab has proved its worth in actual use, fittings and equipment are being studied for additional units.

LOW KEY AND LIVELY ACTION

(Continued from Page 411)

feel that he is right at the scene of the brawl. The camera is down on the floor for most of the action, a vantage point that makes the combats seem large in the composition.

Much of the action in "Blood On The Moon" was filmed on location in far-flung sections of the Southwest. The main theme of action was the fantastically eroded country with its cathedral-like plateaus found in Arizona near the Grand Canyon. Most of the new sequences were filmed at the Colorado Rockies. The desert locales and some of the mountain scenery were obtained in California and Utah, and the river crossing was shot on the Rio Grande in New Mexico. On the screen, all of this widely scattered scenic splendor combines to suggest one general locality.

On location, Minter observes, "a cameraman often has to change the lighting he has planned in order to adapt his camera to the atmospheric conditions of the locale. Location time is expensive, and a company can't sit idle for hours waiting for a certain kind of cloud to appear. In one exterior sequence, however, we did have to wait until late afternoon to film

is a player against a common kind of cloud-filled sky. This was necessary in order that we might dissolve to a low-key interior without too great a change in visual mood. Our greatest difficulty in outdoor location filming is to match scenes in the same sequence that were shot on two or more different days. Atmospheric conditions are rarely the same from day to day."

A helicopter owned by the studio proved available throughout the filming of "Blood On The Moon." It was used during the planning stages to scout locations to which no roads led, and later the same helicopter was used as an aerial camera car to film a snowy mountain chase sequence. It also dropped fresh food and water to a movie unit stranded by floods in Monument Valley, Arizona, and it explored feasible routes for the roads which the movie company had to build to reach beautiful but hitherto inaccessible regions. It is estimated that the company built 320 miles of roads (where none had previously existed) in Arizona alone.

The snowbound Colorado locomotive was approached most easily by sledging in the heavy rolling snow, such as sound and gnomes trucks. One of the most useful pieces of equipment was a giant tank car which could pump and squirt water like a fire engine. It had winches fore and aft wound with steel cables by means of which it pulled over jeps up otherwise impossible roads. It featured rugged engine drives on all its multiple wheels, a cat tread for special kinds of work, and best of all, a bulldozer blade and rollers. The latter could be weighted with water in its cylinder from the huge tank. This mechanical monster came from Army surplus, and as its expert driver said, "If it could only cook, I'd have married it a year ago."

Air travel proved the most efficient way to move stars and technicians from one shooting site to another. Director Robert Wise would shoot all the close and medium shots in a certain locality, and then hop aboard a plane to change companies such as "action director," Arthur Rossen, who would stage the long shots.

Getting the right kind of snow at the right time proved to be a real problem. In the Colorado sequences, the snow had to be imbricated in front of the camera and break-off on a hose. In the Utah and Arizona snow sequences it had to be lighter but growing heavier, in order to represent earlier phases of the same season. Skiers spooled one location by leaving their tracks on the otherwise virgin snow. The helicopter came in handy in one sequence showing two players on horseback struggling through the snow, because it could hover in front of them and follow their ascent without leaving tracks, at a conventional camera would have done.

These herds of cattle in as many different states represented the single herd



It's New! A complete *Auricon-Pro 16mm Sound Recording Camera Outfit*, precision built in Hollywood for professional results. Ready to shoot high-fidelity talking-pictures anywhere, all you need is film. *Complete Studio Outfit, \$2173.28* as shown. See your Dealer or write for free illustrated Catalog.

BERNDT-BACH, Inc., 7381 Beverly Blvd., Los Angeles 36, Calif.

MANUFACTURERS OF SOUND-ON-FILM RECORDING EQUIPMENT SINCE 1929

New! TELEFILM'S "Lok-On" Flange

Used by Leading Hollywood 16mm Editors
and Producers for Editing and Re-winding

But Todd has been a strong team member before. When a group chair phoned him to help, he made sure the meeting place was convenient. He also spent time with the group, even at a time when he was busy with his own work. He was a good listener, and he was a good speaker. He was a good leader, and he was a good team member. He was a good person, and he was a good friend. He was a good man, and he was a good citizen. He was a good son, and he was a good father. He was a good brother, and he was a good uncle. He was a good grandfather, and he was a good great-grandfather. He was a good neighbor, and he was a good community member. He was a good American, and he was a good human being.

TRY IT 10 DAYS - MONEY BACK!

May be purchased: *yes*; *no* (see below). The book may be sold in the long run with a profit, may be purchased immediately at half price or go off in a discount delivery. It is sold at the same price, but it is not.

TELEFILM INC.

UNIVERSITY OF MARYLAND

6039 Hollwood Blvd., Hollwood 78 Calif.

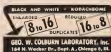


GIL NOGEMAN, Senior

Send for your FREE copy of the Morgan Camera News, with a complete list of all the latest photographic equipment.

LACERDA, C. A. M., S. L. DE

4362 Sweet Filed • Hefrenod 28, Cald



25 YEARS AGO

With A S C



And Members

- JACKSON BOST moved over to Universal City to handle the camera for King Baggot.
- SOL POLOTT was shooting the John M Stahl production, "Why Men Leave Home," on a loanout from Edwin Catowee productions.
- HENRY SHARP recovered from an operation which hospitalized him for a week, and resumed activities as cinematographer for Thomas H. Ince at Culver City.
- IRA MORGAN was handed the cinematographic helm of the year when Cosmopolitan Productions chose him to photograph "Yokanda," an 11-reel costume production. Now with Cosmopolitan three years, Morgan's previous picture was "Little Old New York."
- NORBERT BROOKE was shooting "Black Ozen," Frank Lloyd's first production under his own banner for First National.
- CHARLES VAN ENGER joined the Ernest Lubitch unit at Warner Brothers studio as director of photography.
- VICTOR MILNER was filming Ford Nichols production of "The Name Is Woman," for Louis B. Mayer.
- JOHN SUTTS, Philip Whisman and James VanArsen were receiving accolades for success of A S C's fourth annual ball held at Baltimore Hotel, October 27th, 1925. A feature of the event was a mammoth replica of a motion picture camera designed by William C. Menzies and erected on the ballroom floor by members of staff of Pickford-Fairbanks studio.
- JOHN BOYLE, one of the newer members of A S C, was enroute to Italy to photograph "Ben Hur" for Goldwyn.
- HENRY SHARP completed the photography for "Anna Christie," Thomas H Ince production directed by John Griffith Way.
- CHARLES VAN ENGER was filming "The Marriage Circle" for Warner Brothers Ernest Lubitch was directing.
- ROBERT NEWHARD returned from location in the bad lands of Arizona where he filmed scenes for First National's "Sundown."
- FRED JACKMAN had just completed the directorial chore on "Res. King Of Wild Horses," and was preparing to direct another. Floyd Jackman handled the photography.
- ARTHUR BRIDSON was shooting Doug Fairbanks' "The Wolf Of Bagdad," and replaced Phil Whisman, who was sent to Africa on another assignment, with Kenneth MacLean as his associate cameraman.

portrayed in the story. In setting these cattle for driving in stampede sequences the studio had to agree to feed the animals back to their original weight, no matter how much time or feed this might take in order to live up to this stipulation, an arrangement was worked out with a rancher who had more grazing land than cattle.

The stampede sequences in the film involve some amazing photography. The camera seems to be right in the midst of the thundering herd most of the time. In one subjective shot, to simulate the point of view of a rider about to be trampled to death by the frenzied cattle, the camera is placed on the ground and the hooves come crashing right up into the lens with an almost frightening realism.

"Blood On The Moon" is an example of the impetuous pace played by creative cinematography in modern film production. Without the dynamic camera work of Nicholas Musuraca, this might have been just another Western—but his dramatic lighting and camera anxiety have added force and suspense to the action, making "Blood On The Moon" one of the season's most absorbing outdoor action pictures.

LATENSIFICATION

(Continued from Page 20)

with the action of the safe light although the strips showed only a very slight increase over normal fog values in the unexposed areas. Tests with post-fogging over a wide range of intensities and exposure times confirmed the diagnosis that a small amount of light, applied over a considerable period, has the effect of intensifying the latent image. Mr. Gibson, a capable still photographer and at that time a devotee of midjet racing, put the process to work by shooting action stills at night on a poorly lit track in the vicinity of his home. He succeeded in getting commercially satisfactory negatives under conditions which his meter indicated would be under-exposed by upwards of two stops.

The word "latensification" was coined to describe the intensifying action on the latent image and the process was called to the public's attention by a brochure containing striking photographic examples. Articles were published in magazines appealing primarily to amateur photographers. Hollywood technical personnel was familiarized with the possibilities of the process but it was not until it was suggested to De C. R. Dady of Paramount that an application was attempted in the motion picture industry.

Starting in late 1945, Paramount applied latensification to production action

stills. The three to four fold speed gain made it possible to obtain sharp, fully-tuned negatives during action and so save a day or more of shooting time on each production by completely eliminating the time required for posed stills. Stills shot at the height of dramatic action have been enthusiastically received by national press and magazine services through which Hollywood gains publicity for its product. In comparison, the old method posed stills appear static, miked, and lacking in pictorial authority.

Early in 1947, Paramount extended the latensification process to the treatment of motion picture negative. Remarkable benefits, both economic and in picture quality, have been obtained on location interiors and night shots. Production has been able to use many desirable locations which otherwise could not have been considered, either because of prohibitive lighting expense or because of restrictions which would have made it impossible to bring in the necessary lighting equipment.

In April, 1948, a complete description of the Paramount development and application of the process was presented by De Dady to the Pacific Coast Section of the Society of Motion Picture Engineers. More recently, Cinecolor's use of the process is reported to have reduced lighting costs to an estimated ten percent above that for black and white.

Cinematographers, particularly those dealing with glass shots or with dramatic interiors, have seen negatives gain in shadow detail when an extended period has intervened between exposure and development. This evidence that the original exposure has affected grains that do not develop when freshly exposed negative is processed helps explain what happens with latensification. The energy from the post-fogging light affects more strongly grains that have a sub-threshold exposure than those which are unexposed. Thus, by the time sufficient post-exposure has been given in order to fog previously unexposed grains, those which received a slight image exposure act as though several fold more light had fallen on them originally. The increase in density in the shadow area very lowers the contrast of the picture very noticeably, but is compensated for by increasing development to the extent that the highlights are brought back into normal relationship with the shadows. Some increase in graininess is apparent but is not commercially objectionable on most subject material.

The use of light to activate the negative permits of very accurate control and yields dependable, uniform results. Films from various manufacturers may call for different fogging light intensities and there may be minor differences between emulsions of a given type from one manu-

latter. However, the experience to date is that all negative materials respond to the treatment and that the optimum handling procedure for each can be readily determined.

The equipment for post-fogging can take a variety of forms but can be visualized as a drybox-like arrangement wherein a negative can be exposed to a weak source of light for a number of minutes as it passes through. It is obvious that the machine has to be designed to handle negatives without passing on scratches abrasions or pressure marks and to maintain a constant speed. The exposing lights should be variable in intensity but under accurate voltage control at any given intensity. Light allowed by an ordinary green safelight can be used on panchromatic materials, as a matter of convenience, but any color which will fog negative will produce the effect. Some wave lengths may have minor advantages over others but at present this subject has not been extensively explored.

As regards time of exposure, evidence indicates an increase in speed as the fogging time is increased up to an hour or longer. However, exposures longer than five to ten minutes do not give enough additional speed to offset the economic disadvantages.

The amount of fog produced in a given length of time, influences speed to an appreciable extent. Substantial speed increases can be obtained with no visible fog added to that in unexposed areas. Practical considerations however favor the exposure being adjusted so as to produce a fog increase of 0.5 to 1.0 over that of an unexposed film developed the same length of time.

Latent images, like many another photographic process, had its origin in a chance observation. It could have been missed had there been a less alert, a less inquisitive person involved. The moral is that there are probably other valuable hints to be made in the fascinating field of photography awaiting the persons who will look for the answers behind unusual occurrences.

"JIGSAW" FILMED

(Continued from Page 472)

deal of the action took place, of the fixed walls of narrow halls and of elevators, and of the immovable furniture, furniture, etc., which he invariably found in such locations as the per shop. Before settling to shoot the picture, he had considered using mostly photoflood lamps and R 2 photo floods, but he found that even after building a number of barn doors and bangers for use with these lights they would not give the precise lighting control neces-

C. ROSS

FOR

LIGHTING EQUIPMENT

Inkies and Arc Lamps including Required Accessories
Generators—Cables—Beads—Boxes

•

Ruby Camera Crane—Dollies—Blimps—Geared Heads

•

GRIP EQUIPMENT

FOR LOCATION AND STUDIO

Parallels—Steps—Platform Ladders
Century Stands—Reflectors—Flags—Scrims

•

SOLE EASTERN MOLE-RICHARDSON CO. DISTRIBUTOR
RENTALS • SALES • SERVICE

•

CHARLES ROSS, Inc.

333 WEST 52nd STREET

NEW YORK 19, N.Y.

Circle 6-5470-1

SALES • SERVICE • RENTALS

— 35 mm. • 16 mm. —

CAMERAS • MOVIOLOS • DOLLIES

Complete Line of Equipment for Production Available for Rental

Mitchell; Standard • Hi-Speed • NC • BNC • 16 mm.

Bell & Howell; Standard • Shiftover • Eyemoss

Manner; 16 mm. Cameras

Moviolas; Editing Machines • Synchronizers

SPECIALISTS IN ALL TYPES OF CAMERA REPAIR WORK • LENSES MOUNTED



EVERYTHING PHOTOGRAPHIC

AND CINEMATIC

FOR PROFESSIONAL AND AMATEUR

The World's Largest Variety of Cameras and Projectors, Studio and Laboratory Equipment with Latest Improvements at Low in the Hollywood Section, New and Used. BARGAINS

HOLLYWOOD CAMERA EXCHANGE

1600 CALENGUA BOULEVARD
HIO 3631 • Hollywood, Calif. • Cable HOLCAMEX



way to be standardized on Mole-Richardson mogul spots and sky dials for key and kicker lights, plus half-broads and any 150 watt bulbs for fill in light.

In the apartment interiors, these tiny units were secured to ceiling beams and moulding to produce natural source lighting, and these were augmented by other mogul spots mounted high on floor stands. In the pet shop interiors, the birdie or sports and broad furnished adequate light for a location that called for a good number of camera positions.

The entire production was lit in exceptionally low key and photographed with a fast lens. In shooting the Museum interiors, no attempt was made to light up the broad expanse of walls in the corridors and rooms. Instead, the low-key theme was followed and shafts of light were used at various planes to accent depth of the scene and to lend authenticity to the serene mood of the those scenes staged within.

Another thing which greatly amplified the photography was the absence of sound equipment—especially the mike boom which, under the lighting conditions used in the apartment and pet shop interiors, most certainly would have involved unwanted shadows. But this was not the primary reason for not recording sound with the picture. It was the belief of the producers Lee and Danziger, based on long experience of dubbing foreign versions, that it is possible to get greater dramatic feeling into the dialogue when it is post-recorded and dubbed in after the picture is cut.

Briefly, this dubbing process proceeded as follows: After the picture had been cut and edited, the cast—which included Fincher Tone, Jean Wallace, Mark Lawrence and others—was assembled at the recording studio and the picture projected by sequences. As the picture unfolded on the screen, the players spoke their lines accompanied by any necessary off-stage sounds such as the ring of a telephone, footsteps, the rattle of liquor glasses, etc.—all of which were handled by the sound effects man. Careful rehearsal and skillful cutting of the film resulted in perfect synchronization between the post recorded sound and the picture.

The picture is certain to be studied with interest by producers of low-budget films. The natural location procedure, even though not followed for every scene in a production, can materially reduce production costs whether the picture is made in Hollywood or New York. Don Malkanes, who has been working behind many picture cameras since 1918 believes that this unique production system will find special favor among those producing films for television, and also that it is worth careful study by the serious amateur movie maker for the lessons it teaches in lighting home interiors.

Malkanes, who got his first studio experience back in 1922 at the old Fox Western Avenue studios in Hollywood, has been active as a free-lance cinematographer in New York for the past several years. The production problems peculiar to picture making there have en-

abled him to develop many shortcuts in lighting and to discover many new and hitherto unused lighting kinks applicable to motion picture photography. This grounded in the rudiments of what is essentially economy production practice, he was especially fitted to handle the camera and lighting on "Jigsaw." Fincher Tone, who was associated with Lee and Danziger in producing the film, has been highly complimentary of Malkanes' camera-work. "It is doubtful," said Tone, "that there are many cameramen who could achieve the excellent quality of lighting that Malkanes did, considering the lighting equipment he had to work with and the limitations of his set."

CONTRACT LINEUP SYSTEM

(Continued from Page 415)

dow. The difference would be a saving of perhaps 25 to 30 minutes—valuable time on a movie set.

Actually, the Karl Freund Lineup System is predicated upon the same principles involved when an architect plans a house. If the architect doesn't alter his plans after construction is begun, the house will probably be completed on time and at the estimated cost. But if he orders more windows installed or perhaps a fancy door instead of a plain one, the builder's schedule will consequently be slowed and the house will inevitably cost more than originally estimated. On the sound stage, if the director carefully estimates his needs and the cameramen and crew meet them to the letter, no delays will occur and cost of production is certain to go down.

What most certainly will result is that the ones for costly delays no longer will be charged against the director of photography and his crew—unless they are really are responsible for them.

BANISH THE SHADOWS

(Continued from Page 417)

If you are planning an ambitious scenario film in which some or all of the action is staged out of doors, use of reflectors is a must, and we'll tell you how to make them—easily and intelligently—a little later on in this article.

When shooting movies on a vacation trip, a reflector or two is all the more essential. So often movies are filmed in clear high altitudes with the sun overhead, with the result that shaded faces are badly underexposed. Here, more than at any other time, a reflector is necessary to throw light into the scene from the side. I have seen over 50 many Breen and 16mm

—Only Art Reeves Can Sell The New Model—

SENSITESTER

Will Handle Modern Fine Grain Film

NOW AVAILABLE

Line-O-Lite Recording Glow Lamps

ART REEVES MOTION PICTURE EQUIPMENT

1515 N. Cahuenga Blvd.

Hollywood 28, Calif.

Rentals Sales and Repairs Mitchell Bell & Howell Ezyne Akafay Wall Cameras	"Debloopers" John Clausen - Ernie Harwood National Cine Equipment 20 West 22nd St., New York 10 Cine Special Repairs, Modifications Animation Stands • Motors • Magic Eye Cameras	Designing Manufacturing Lens Mountings 16 and 35 mm. Kodak Lenses Photomicro "F" Scaling
---	--	---

Kodachrome movies spoiled because the matter of facial shadows was completely overlooked by the filmer, when the use of a newspaper, a towel or some other reflective material might have been used to lighten the shadows and save the picture.

Reflectors have their place in filming indoors also, too. Other movies can be filmed indoors, using only sunlight coming through the windows for illumination. But where the light source is decidedly from one direction, a reflector placed on opposite side of subject is necessary to reduce or eliminate the shadows entirely. Reflectors may also be used to advantage in conjunction with photofloods to throw full light into the scene or upon subject where additional photoflood lamps are not available for the purpose.

The question is often asked: How does one obtain correct exposure meter readings when reflectors are used? The obvious answer is that you take your meter reading in the same manner as when no reflector is used. Light coming from the reflector contributes to the overall illumination falling upon your subject. Therefore whether you are using the incident light or reflected light method of exposure calculation, follow the normal method of reading your meter—but be sure that reflector is in the very position in which it will be used when the shot is made.

In Kodachrome photography, it frequently happens that an aluminum or foil reflector throws too blue a light upon the subject—reflecting the natural blue color of the sky, of course. In such instances, the reflector may be covered with a sheet of amber cellophane, although it would be more advisable to cover the reflector with gold instead of silver or aluminum foil in the first place. Either medium will have a tendency to soften the light to a pleasing amber tone.

Where light coming from the reflector is too harsh as when used at close range it may be diffused by placing cheese cloth or curtain screen over the reflector. This item is an essential accessory to reflector use and should be carried at such at all times.

Any movie maker handy with tools and paint brush can easily make one or more reflectors, using materials easily acquired even in these days of continuing material shortages. Essential requirements are the panel, the frame and the covering material. Before making construction the movie maker should consider how he is to carry this equipment and store it. For infrequent home use a single panel of plywood will suffice for the reflector, but where reflectors may be needed on distant locations, then the possibility of fitting them into one's automobile trunk compartment should be considered. In such cases, the two-panel folding type will be found ideal.

Select a panel of plywood 70 by 40

inches and cut it down the middle, making two pieces 15 by 20 inches. From 1 inch by 2 inch material, make two frames 15 by 20 inches. Tack plywood panels to frames, then join the two sections together using two small hinges obtainable at the dime store. On the open edge of one panel, attach a small carrying handle and then add a small accordion hook and eye screw to keep the reflector closed when folded and not in use.

The next step is to coat the reflector surface. Simplest method is to first give panel a thorough coat of shellac. When dry, apply a coat of chrome paint—which is similar to aluminum paint but much brighter. One coat, carefully applied should suffice. Where more than one reflector is to be made, the second one may be surfaced with silver or aluminum leaf. This is a ticklish job, although it isn't essential that the leaf be applied so precisely that no lap marks will show. In fact, many professionals apply the leaf so that it overlaps the adjoining leaf a half an inch or so, thus insuring 100% coverage of the surface.

To apply the leaf, the plywood surface is first shellacked. Then a second coat is applied, a little at a time, and the leaf applied by means of the fine lined hair brush supplied for the purpose. Foil, brush, and more detailed instructions for their use may be obtained from any sign painter's or showcard writer's supply house.

Some will find it more practical to coat both surfaces of the reflector—one hard and one soft—or do many Hollywood studios. Thus the one who does double duty, and the more profitable foil surfacing may be applied inside where it will be safe from the abrasions incident to handling.

Another inexpensive and much simpler type of reflector may be constructed of panels of heavy cardboard or wall-board. If cut the same size, as suggested above, the panels may be hinged together by means of bookbinder's gummed tape or cloth, obtainable in stationery stores and some paint stores. Paint or foil surfacing may be applied in the same manner as for the plywood patch.

In use, such reflectors as we have described here require some means of support and for this, ordinary one inch boards of the desired length should be applied.

Some amateurs have made the support an integral part of the reflector, providing it in two hinged or sliding pieces and attaching it to the reflector frame work with a single screw, to allow it to swing out into place.

For use in making movies while traveling, one of the handiest reflectors we have yet seen consists of an ordinary white roller window shade, cut down to an area of about 30 by 30 inches—sometimes less—and one surface coated with alu-



NEW...16 mm. Moviola

HOW— professional Moviola for home use. A duplicate. Made by readers of the *Movie Maker*. Are built at controlled speed forward and reverse. Control 2 x 1/2" picture on screen. Write for literature and prices.

MOVIOLEA MANUFACTURING CO.
1451 Grafton St. Hollywood 28, Calif.

Scheiber FILTERS
in World-Wide Use

GRADUATED FILTERS for
Moonlight and Night Effects in
Daytime, Diffused Faces and Fog
producing Filters. The Original
Advances and many others.

WRITE FOR PRICES *Illustrate too*
George H. Scheiber
ORIGINALATOR OF EFFICIENT FILTERS
1037 WEST 17TH ST. LOS ANGELES, CALIF.

don't be UNFAIR

Even audiences have some
rights. Don't let film treatment
spoil their enjoyment of your
picture. Protect yours with
PEERLESS FILM TREATMENT

PEERLESS FILM PROCESSING
CORPORATION
100 WEST 42ND STREET, NEW YORK 18, N. Y.

Buy
Christmas
Savings

PROTECT YOUR HOME
from
TUBERCULOSIS

PROFESSIONAL

16mm. View Finder

for...

- Boxes
- Series 70 Films
- Cine Special

SHOWS LARGE, ERECT IMAGE, CORRECTED FROM LEFT TO RIGHT, ON GROUND GLASS

The first real professional light-weight view-finder ever offered for the above cameras. A must for several professional film production units for complete description and price.

Write for complete description and price.

Maier-Hancock Corp.

12270 Manogue St.

Fullerton, Calif.

AUTOMATIC DISSOLVE For The Cine Special



New Improved Model "C"
"600"

JOSEPH YOLO

3543 Santa Monica Blvd., Hollywood, Calif.

LEAKS OF CHROMIC PAPER. A reflector of this kind may be used and held by an assistant to furnish light in darkened areas, to throw light on shaded faces, and to otherwise balance the illumination within scenes encountered in one's travels. Such a reflector, made of this writer's suggestion, enabled a professional 16mm. cameraman to obtain some excellent shots of native craftsmen at work in Mexico recently.

Of course, before you are to work constructing reflectors for your own use, you may wish to test the effectiveness of such a photographic aid. If so, the next time you are shooting movies in sunlight, have another member of the family hold a round, a sheet or a panel of white cardboard outside of camera range but in such a manner as to throw reflected light into the scene on the shadow side of your subjects. The results on the screen will convince you that reflectors are essential to good cinematography.

SPECIAL EFFECTS LIGHTING

(Continued from Page 418)

has a relatively harsh quality when compared to interior lighting, so it is best simulated by shining an arc unit through a window or doorway of the set. If arc illumination is not available, however, a senior or even a junior spotlight can be used with satisfactory effect. If the film is being shot in color, use a straw-colored gelatin over the source to simulate the warmth of the sunlight.

The same types of lighting units are used for moonlight effects, except that they are generally toned down by means of diffusers, and the general key of the lighting is much lower. If a moonlight scene is being shot in color, a very light blue gelatin should be used over the source light.

Candlelight, lamplight and footlight effects are frequently called for in the modern commercial film—and they, too, require special setups. The main aim is to follow in imitating any of these lighting effects is *simulate the source*. In other words, place your lighting units so that the light will fall on the subject in the same way that it would if your source were a candle, a lamp or an open fire. If you are uncertain as to how the light would actually fall under these conditions, set up the real situation, observe the lighting effect, and then set your lights accordingly.

Candlelight is a soft even glow that emanates from a central source. In order to duplicate this glow in lighting several people seated around a table, for example, you would use several Baby-Kephres or Dinky links (one for each person and one directly over the candle) so that each

person will be evenly lighted from the central source and so that each will cast his own individual shadow. Slight diffusion over the units will add realism to the effect.

Lamplight effects are set up in a similar fashion, except that the key is usually somewhat higher and the shadows more definite. This means brighter lighting units and less diffusion. Whenever candle light or lamplight scenes are shot in color straw-colored gels should be used in front of the lighting units.

Colored light is a subject that has caused heated arguments in the field of commercial color film production. The purists maintain that it is an illegitimate conceit any device—but more and more commercial cameramen are coming to realize that colored light, properly used, has a definite place in commercial production.

So many industrial and technical subjects lack color that it is a constant struggle for the cameraman to add visual interest to his compositions. Machinery is usually a drab gray or black, and industrial workshops or laboratories are emotionally painted in the dullest possible colors. Many cameramen solve this problem by placing colored gelsatin over the lights used to illuminate backgrounds. It is not recommended that the key light be tinted (unless there is some specific reason for it) but side-light, top light and back-light usually colored will add much even to scenes which include people. Be careful, however, not to let colored light dominate the dash scenes, as the results are sometimes fairly weird.

A single shaft of colored light falling across a background will often dramatize a scene that would be completely colorless otherwise. The camera person will ask the logical question: From what source is that light coming? But the audience will rarely, if ever, ask such questions. It will only be conscious of the fact that the scene has a certain verve to it plus the ability to hold interest.

Gene are the days when the commercial cameraman could get by with mere illumination. Today he must concentrate on lighting that not only makes the scene photographically feasible, but adds to the impact of the screen presentation, holds the interest of the audience, and thus contributes to selling the idea which the client wants to get across.

MOBILE JACK

(Continued from Page 414)

The Spellersider, constructed entirely of steel, consists of a lifting device combined with a mobile framework carrying a vertical lifting bar mounted at the front, as shown in the accompanying diagram. On the bar are two hooks—one at the top and

(Continued on Page 433)

★ ★ ★ ★ ★ ★ ★ ★



TIME-TRIED AND PROVEN
4 LONG CINE SPECIAL EFFECTS

Custom built "C" model camera—for the professional and advanced amateur—any lens combination up to 15mm. through 150mm. or more with no field interference—allows rapid swing from lens to lens—positive stop and field alignment on each position. Price your price today. Limited number available. Price \$175.

Arthur H. Hall, Camera Development

2121 Thibault Ave. San Francisco, Calif.

★ ★ ★ ★ ★ ★ ★ ★

DIRECT 16MM SOUND WITH MAUBER RECORDING SYSTEM

For the Producer of 16mm. Features, Educational and Religious Films

- Edge Mounted Work Prints
- Synchronized Studio Photography
- Sound Recording
- Reverse Prints
- Duplicate Negatives
- Color and Black

GEO. W. COLEMAN LABORATORY, INC.
144 M. Wacker Dr., Dept. 4 - Chicago 6, Ill.

WHAT'S NEW

in equipment, accessories, service



Film Treating

Peerless Film Processing Corporation, 165 West 46th Street, New York 19, N. Y., known for their vacuum vaporizing treatment which extends useful film life, has announced that increased facilities for the application of their process are now available at the laboratories of Jam Handy Organization, 2821 East Grand Boulevard, Detroit 12, Michigan and Sawyer Inc. 725 S. W. 20th Place, Portland 7, Oregon.

As a result of this greater capacity, these laboratories will now accept film from outside customers for Peerless treatment in their respective areas. They will continue to apply Peerless film treatments to films printed on their own premises.

Other installations of Peerless vacuum-vaporizing treating equipment have been made for Byron, Inc., Washington, D. C., Reid H. Ray Film Industries, St. Paul, Minn., and Autos Film Corp., Oak Park, Ill.—all important producers of industrial motion pictures. They will make the Peerless treatment available to others, also.



Editone Sound Reader

A new type combination sound reader designed to instantly reproduce either 16mm or 35mm sound tracks—interchangeably without adjustment of any kind—is announced by Charles Mogull of Mogull's, Inc., 68 W. 48th St., N. Y. City. The new Editone Sound Reader is used between re-records for fast cutting and spotting. Short runs may simply be pulled through by hand for identification. A specially designed amplifier delivers ample

volume for faithful reproduction. Used in conjunction with conventional type viewer, the Editone simplifies editing of any film from a short to a feature.

16mm. Movieola

A new, compact, easy to use professional 16mm Movieola is now offered by the Movieola Mfg. Co., 1451 Gordon St., Hollywood Incorporating all the fine features of the standard 35mm Movieola, the professional 16mm model operates at controlled speeds forward and reverse. Improved optical system provides a brilliant 7"x2 1/2" picture on the hooded viewing screen. Complete descriptive literature is available for the asking.



Open Frame Finder

Arthur H. Hart, 2125 53rd Ave., San Francisco, is now offering a special open frame viewfinder which mounts upon the regular tubular finder of the Cine Kodak Special. Finder illustrated above covers area of standard 2" lens. Masks are supplied for use with lenses of other focal lengths. Cross hairs provide accurate centering. Solid masks are available when desired.

Brunkert Projector

A new 17mm Brunkert Film projector especially designed for the medium-size theatre which must operate on a conservative budget, is announced by the Brunkert Light Projection Company, subsidiary of R.C.A. New model is available in both single and double shutter models, has a large door on operating side that exposes entire film compartment, inner surface of film compartment is finished in light colored enamel to facilitate inspection of film, and the intermittent mechanism is identical to the larger Brunkert BX-80 projector.

Motor Booklet

An informative booklet, "What Every Cameraman Should Know About It" (Continued on Page 433)

"Goerz American"

PRECISION PHOTO-LENSES

An American Product Since 1899

will give you a lifetime of profitable satisfaction

GOERZ DAGOR F8.8

The favorite universal all purpose lens, color-converted wide-angle, convertible—for infra-red, ultraviolet, ultraviolet and smaller wavelengths views through binoculars color film viewing enlarging.

GOERZ SUPER DAGOR F8

The wide-angle lens, greatly extended coverage convertible.

GOERZ DOGMAR F4.5

The perfect speed lens, color-converted convertible for news sports parks, general work color film.

GOERZ ARTAR F9 TO F16

The economical prime lens for color snapshots with perfect register in the final print—also for black and white commercial work.

GOERZ GOTAR F6.8, F8, F10

The lens for black and white precision and commercial work, viewing and enlarging.

GOERZ HYPAR F2.7, F3

Color APDOR F2.8

The movie lens with microscopic definition.

GOERZ MOVIE CAMERA ACCESSORIES

Order from your dealer now for delivery as soon as possible

The C. P. GOERZ AMERICAN OPTICAL COMPANY

Office and Factory

317 EAST 34 ST., NEW YORK 16, N. Y.

AC-12

RUBY CAMERA EXCHANGE

Rents . . Sells . . Exchanges

Everything You Need for the PRODUCTION & PROJECTION

of Motion Pictures Provided by a Veteran Organization of Specialists

35 mm. 16 mm
Television

IN BUSINESS SINCE 1910

729 Seventh Ave., New York City
Cable Address: RUBYCAM

Index To AMERICAN CINEMATOPHAGER—1948, Vol. XXVIX

- A**
Academy Award Nomination—Best Cinematographer of 1947 87
Academy Award Winners—Best Cinematography of 1947 118
Adventures of Rudy Crude 22
Amateur Movie Club, Organizing An 212
Amateurs Make Movies the Hollywood Way 276
Americans At Home—Documentary Series in Color 94
A.S.C. First Contributor to Academy Permanent Film Collection 120
A.S.C. Officers Installed 199
Among the Movie Clubs 20, 56, 92, 130, 170, 210
Application of Motion Picture Technique to Television, The 194
Apprenticing the Motion Picture 163
Are You "One In A Million?" 240
Art Direction For "Join of Art" 160
Austin, Ralph B.—Application of Motion Picture Technique to Television, The 194
Automatic Devices 252
- B**
"Base Ruth Story"—Baseball Production On a Stage 91
Banker, Fred—"Speed Camera" 341
"Beneath the Shadow" 417
Bating Exposure On Incident Light 238
- Book Reviews—**
An Introduction To Color 282
"Cinema Digest" 69
"Film In Business and Industry" 69
"Film In Modern Photography" 253
"Crisson On Documentary" 69
"How To Make Industrial Photography" 253
"Kodachrome and Ektachrome" 253
"Magnetic Recording" 69
"Professional Continuity" 253
"Professional Portrait Lighting" 282
"Westward How" 282
- Recent Films 22, 342, 347, 348**
- C**
Camera 28, 207, 269, 273, 325, 376
Camera's Point Of View, The 273
"Captain From Castle"—Safari South of the Border 80
122, 158
Cinematist's Glossary of Cinematography Director Moves Ahead 373
Cine Kinks For Movie Amateurs 240, 278, 314, 350, 386, 424
Cine Mags 373
- Cinema Workshop—**
19. Presenting Your Film 16
20. Distributing Your Film 58
Charles Clarke Elected President of A.S.C. 156
Cliss, Willard M., ASC—
Mobile Camera Lab 410
Color B 10, 79, 94, 198, 343, 373
Color Dupes Require Careful Filming 381
Color Is Different 10
Color Is His Forte 343
Color—What It Is—How To Use It 198
Contact Printer For Special Effects 375
Current Assignments For A.S.C. Members 32, 68, 104, 140, 180, 216, 250, 286, 322, 334, 370, 406
- D**
Depp, Oscar B.—
"My First Fifty Years in Motion Pictures" 124
Denver Banks and Modern Set Lighting 337
Double Life, A—The Camera Goes Backstage 116
Dramatic Pictorialism With Infrared Film 265
- E**
EMM—125, 237, 238, 240, 273, 276, 309, 310
- F**
Electronic Flash For Still Exposures During Shooting 85
Experiment of the Moving Camera 376
Exposure 102, 238
Extremely Wide Angle Lens For Aerial Mapping 154
- F**
Farrington, Ray, ASC—
"Kaleidoscope Filters" 301
Film 208, 265
Film Camera 138
Filming the Olympic Games 374
Filming the Story of the "Guest Eye" 312
Films: 7, 301, 338
Filter Screen Recommended For Interior Exterior Shots 7
Fitzgerald, B. F.—
"Adventures of Rudy Crude" 22
Fleur Baer—
"Troubler Process, The" 79
"Forever Amber"—Tapestry In Technicolor 8
Foster, Frederick—
"Filming the Olympic Games" 374
"Mobile Jack For Moving Wild Walls" 414
"Photography For Television" 229
"Transition Lens For Television Camera" 266
14 American Standards For Motion Pictures Approved in 1947 86
- G**
Gately Fred—
"The New 'Specs' Measures Color Temperature" 266
Gills, Alfred, ASC—
"Lighting Home Movie Interiors" 382
Gleamazing Nuts And Bolts 420
Goodman, Eric—
"Motion Picture Photographer To Director" 84
Gordon, James ASC—
"Contact Printer For Special Effects" 375
Grand Opera In 16MM 274
- H**
Haggen, Alfred—
"Gleamazing Nuts And Bolts" 420
Hollywood Bulletin Board 224, 260, 296, 332, 368, 404
Howe, Melba—
"There's Gold In 16mm, Too!" 342
Hurley, E. A.—
"Speed Boom" 234
- I**
Insurance Company Produces Own 16mm Film 241
- J**
Jackson, Fred, ASC—
"Cine Mags" 370
"Movie Box Tricks" 348
"Johnny Filmed Without Sound or Sets" 412
"Johnny Belinda" 338
- K**
Kaleidoscope Filters 301
Keane, Norman—
"Camera Moves Ahead" 373
"Johnny Filmed Without Sound or Sets" 412
Karl Freund Introduces The Contact Linup System 913
Keeping Up With Photography 226, 262, 298
Kerkel Sets Up New Laboratory To Study Film For Television 162
- L**
"Lady From Shanghai"—Field Day For the Camera 200
Larson, James—
"Magnetic Cueing" 231
Lateralization 409
Lawton, Ralph—
Amateurs Make Movies the Hollywood Way 276
- Karl Freund Introduces The Contact Linup System 913**
"Making Movies For Money" 237
"Two Aids To Better Photography" 340
Layton, Larry E.—
"Color Dupes Require Careful Filming" 381
Lenses 136, 154, 266, 306, 338, 347, 384
Lens Turret 360
Lighting 52, 85, 88, 238, 309, 337, 347, 377, 381
Lighting Home Movie Interiors 382
Lighting Players On the Set 377
Lighting Small Sets 309
Lightman, Herb A.—
"Captain From Castle"—Safari South of the Border 80
"Double Life"—The Camera Goes Backstage 116
"Exposure of the Moving Camera" 376
"Forever Amber"—Tapestry In Technicolor 8
"Johnny Belinda" 338
"Lady From Shanghai"—Field Day For the Camera 200
"Low Key And Lovely Action" 411
"Movie Box Tricks" 348
"Naked City"—Tribute In Celluloid 152
"Sleep My Love"—Onemane Psycho-Thriller 46
"Story of Filming Berlin Express" 232
Lange, Charles—
"Americans At Home—Documentary Series in Color" 94
"Apprenticing the Motion Picture" 163
"Bating Exposure On Incident Lighting" 238
"Camera's Point Of View, The" 273
"Cinema Workshop" 16
No. 19—"Presenting Your Film" 16
No. 20—"Distributing Your Film" 58
"Lighting Players On the Set" 377
"Lighting Small Sets" 309
"Set Lighting For 16mm Business Film" 347
"Special Effects Lighting For Commercial Films" 418
- M**
Magnetic Cueing 231
Making Movies For Money 237
Marcell, Rick—
"Color—What It Is—How To Use It" 198
Movie Box Tricks 348
Matthews, Glenn E.—
"Photographed Highlights Of 1947" 43
Matus 257, 360
Miller, Virgil, ASC—
"A Seven Reel in Seven Days—It Can Be Done" 115
Miner, Victor, ASC—
"Filter Screen Recommended For Interior Exterior Shots" 7
Membership Roll of American Society of Cinematographers 196, 422
Mobile Jack For Moving Wild Walls 414
Mobile Camera Lab 410
Mois, Peter, ASC—
"Some Considerations Toward Set Lighting Economics" 52
Motion Picture Art Direction For Exterior Productions 48
Motion Picture Photographer To Director 84
Moyle, Hilda W., ASC—
"Lateralization" 409
Music For Movies 270
My First Fifty Years in Motion Pictures 124
- N**
"Naked City, The"—Tribute In Celluloid 152
New Light Source For Motion Picture and Television Studio Lighting A 86

New "Spectra" Measures Color Temperatures The 267
 News Service Launching 16mm Television Newsreels 52
 Nicholson, Elwood—"Grand Opera In 16mm" 274

O
 Organizing An Amateur Movie Club 212

P
 Photography For Television 229
 Photographic Highlight Of 1947 43
 "Pigs And Progress" 378

Planer, Frank, ASC—
 "Dancing Tripod For Following Close-Up" 151

Podas, D. W.—
 "New Light Source For Motion Picture and Television Studio Lighting, A" 88

Proteus 375
 Progress On 8mm Synchronized Sound 135
 Progress 63

R
 "Rope" Sets a Precedent 230

Reader of American Society of Cinematographers—Dec., 1946: 422

Rosen, Arthur—
 "Color Is His Forte" 343

"Insurance Company Produces Own 16mm Film" 281

"Seven New Lenses For 16mm Cameras" 384

Ryder, Loren, ASC—
 "Theatre Television" 12

S
 Set Lighting For 16mm Business Films 347

Seven New Lenses For 16mm Cameras 384

Seven Reelers In Seven Days, A—It Can Be Done! 315

Shafetz, Leonard J.—
 "Pigs And Progress" 378

Shendan, Bart—
 "These And A Half Minute Take" 304

16mm 239, 237, 238, 240, 241, 273, 274;
 216, 309; 342, 347

16mm Film Recorder 252

"Sleep My Love"—Cinematic Psycho-Thriller 46

Smith, Herman E.—
 "Television Camera Operation" 302

Society Of Motion Picture Engineers Convention On West Coast 30; 165; 202

Some Considerations Toward Set Lighting Economics 52

Sound: 135

Special Effects: 312

Special Effects Lighting For Commercial Films 418

Speed Boom 234

Speed Cameraman 341

Splines 252

Story Of Filming "Act Of Violence," The 268

Story Of Filming "Berlin Express," The 232

Strout, Archie, ASC—
 "Dramatic Pictorialism With Intured Film" 265

Sutton, Robert, ASC—
 "Color Is Difficult" 10

T
 Tamura, Philip, ASC—
 "Babe Ruth Story"—Baseball Production On A Stage" 198

"Dinner Banks and Modern Set Lighting" 337

Tag Recorder 324

Telemeter 12; 53, 88; 120, 162, 172, 192, 194, 229, 266; 302

Television And The Motion Picture Industry 192

Television Broadcasts—A new field For Amateur Movie Makers 172

Television Camera Operation 302

Television Field Open For Cinematographers 120

Theatre Television 12

There's Gold In 16mm Tool 342

Three And A Half Minute Take 304

3,000 Frames Per Second! 269

Tiring 253

Tow, Esther—
 "Television Field Opens For Cinematographers" 120

Transition Lens For Television Cameras 266

Tricker 310, 348

T. T. Stups 306

Twenty-Five Years Ago With A.S.C. Members 32, 61, 105, 141, 159, 284, 320, 352, 426

Two Aids To Better Photography: 340

U
 U. S. Navy Develops Super-Speed Cameras 207

V
 Vaughan, Al—
 "Art Direction For 'Joan Of Arc'" 160

W
 Walldorf, Ted—
 "Cinematist's Glossary of Cinematography" 122, 135

Watts, W. W.—
 "Television And The Motion Picture Industry" 192

What's New In Equipment, Accessories, Service, Etc.: 252; 234, 360, 431

X-Y-Z
 Yates, Virginia—
 "Rope" Sets a Precedent" 230

Zurek, Sidney—
 "Filming The Story Of 'The Gunt Eye'" 312

WHAT'S NEW

(Continued from Page 431)

posure, is being offered free to readers of The American Cinematographer by the American Bolex Company, manufacturer and distributor of the Norwood Director exposure meter. Make your request to the company at 521 5th Ave., New York City 17.

several years. Projector operators from without its own carrying case. Upper section of case provides self-contained projection stand supported on four sturdy, rubber-tipped feet, which can be placed on any table. Amplifier is 40 watt capacity, has 12 inch speaker, and reel capacity of projector is 1600 feet. Price with 2" 1/16 lens and twin speaker unit is \$855.00.

Cinematographic Annual

A limited number of copies of the first edition of the A.S.C.'s "Cinematographers Annual" is available for students

of cinematography, movie amateurs, professionals and others who are interested in completing their shelf of books on the art and science of cinematography. Based on a rare collector's item, book includes technical articles on all phases of cinematography and audio practice, written by top studio cinematographers, much of which is in use in Hollywood studios today. The book is printed on quality paper and bound in materials that would be prohibitive were the book printed today. Price is \$3.50 per copy, postpaid. Join American Society of Cinematographers, 1782 N. Orange Dr., Hollywood

MOBILE JACK

(Continued from Page 430)

one at the bottom. These books fit under bumpers on the flats, and two protruding shoulders on the framework of the jack rest against the outside of the lower bumpers, making the strain and also insuring that when the flat is released it is still vertical.

The lifting itself is done by means of counterweight leverage. Each jack can lift a weight of 750 pounds. The maximum load is fixed by the counterweight, which is controlled by an opening handle, and if overloaded, no lift will take place. A second, and if necessary, a third Spelleroller can be attached to a flat or wall in the same manner. Regardless how many are used, the counterweights automatically adjust themselves so that all jacks are

therefore taking the same strain.

The counterweights also insure that if two or more jacks are in use, they automatically overcome any discrepancy in the level of the floor or road surfaces when the flats are being transported from one place to another.

The Spelleroller is on four wheels, actually large wheel casters. The two at the front are well spaced apart, the two at the rear very close to one another, and the whole thing can be pushed about very easily. The jack has a set lift of 11 1/2 inches and a maximum of 5 inches, controlled by a loose adjustable pin which acts either of the two lift ranges.

(Continued on next page)



Sound Kodascope

Eastman Kodak Company announces that the Sound Kodascope PB-40 is again in production after being off the market



How she fares depends on him...

WHAT the laboratory superintendent does is highly important to star...director...and movie-goer.

For his is the responsibility of providing release prints that meet the producer's specifications...and satisfy, at the same time, the requirements of the exhibitors.

Through his picture sense...his broad knowledge of photochemistry and the mechanics of processing, his precise

control of printing density and contrast...he can bring out the best in every film, make the star's voice and presence more effective, help protect her popularity with her audience.

Critical work—this; but done all the more easily and efficiently by the laboratory superintendent and his staff, because of the quality and reliability they find in the famous family of Eastman motion picture films.

EASTMAN KODAK COMPANY

ROCHESTER 4, N. Y.

J. E. BRULATOUR, INC., DISTRIBUTORS
FORT LEE • CHICAGO • HOLLYWOOD

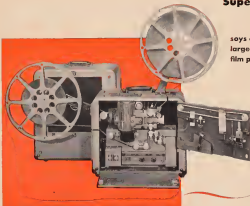


"Our tests showed

Filmosound

Superior"

says one of
largest
film producers"



A MAJOR Hollywood film producer needed a number of 16mm sound film projectors. So a corps of technicians was assigned to testing five makes. The result? "B&H Filmosounds are superior optically, electronically, and mechanically," the Chief Projectionist reported. Here are some of the findings he cited in support of their conclusion.

1. **Finest Pictures.** The B&H shutter results in a great deal less flicker. Lens is very sharp and of high quality. Mechanism appears to be precision-built.
2. **Superb Sound Quality.** Minimum machine noise, splendid functioning of exciter supply, latest amplifier design. Professional-type film gate, impedance drum, and associated mechanism eliminate speed variation and flutter.
3. **Easy to Use.** Controls are ideally located. Rewind is perfect.
4. **Easy to Service.** Amplifier, for example, can be removed and replaced by anyone in less than five minutes.

In choosing a 16mm sound film projector for your personal use, you probably won't have the time or inclination to make thorough comparative tests. But you can guarantee your satisfaction by selecting the projector that wins where such revealing tests are made . . . the Bell & Howell Filmosound. *There's a Filmosound model to meet every need.*

Bell & Howell Company, 7148 McCormick Road, Chicago 45. Branches in New York, Hollywood, Washington, D. C., and London.

*Name on request.

Presented Here by

Bell & Howell

Since 1917 the Largest Manufacturer of Professional Motion Picture Equipment for Amusement and the World